

Math 8 HW Sheets



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M8 - 2.1 - Equal Fractions HW

Solve for the x.

$$\frac{1}{2} = \frac{?}{6} \quad (3)$$

$\times 3$
 $\div 3$

$$\frac{3}{4} = \frac{x}{8}$$

$$\frac{3}{5} = \frac{x}{20}$$

$$\frac{2}{3} = \frac{x}{21}$$

$$\frac{1}{3} = \frac{x}{18}$$

$$\frac{x}{2} = \frac{3}{6}$$

$$\frac{x}{4} = \frac{5}{20}$$

$$\frac{x}{3} = \frac{4}{6}$$

$$\frac{x}{6} = \frac{18}{36}$$

$$\frac{x}{7} = \frac{14}{49}$$

$$\frac{3}{x} = \frac{6}{26}$$

$$\frac{4}{x} = \frac{16}{20}$$

$$\frac{7}{x} = \frac{14}{24}$$

$$\frac{3}{x} = \frac{21}{35}$$

$$\frac{5}{x} = \frac{25}{30}$$

$$\frac{3}{4} = \frac{9}{x}$$

$$\frac{3}{7} = \frac{12}{x}$$

$$\frac{7}{9} = \frac{14}{x}$$

$$\frac{4}{5} = \frac{32}{x}$$

$$\frac{6}{7} = \frac{54}{x}$$

Solve for the x.

$$\frac{1}{2} = \frac{?}{5} \quad (2.5)$$

$\times 2.5$
 $\div 2.5$

$$5 \div 2 = 2.5$$

$$\frac{3}{4} = \frac{x}{6}$$

$$\frac{3}{5} = \frac{x}{12}$$

$$\frac{2}{3} = \frac{x}{10}$$

$$\frac{1}{3} = \frac{x}{25}$$

$$\frac{x}{1} = \frac{3}{6}$$

$$\frac{x}{4} = \frac{5}{18}$$

$$\frac{x}{3} = \frac{4}{8}$$

$$\frac{x}{6} = \frac{18}{20}$$

$$\frac{x}{7} = \frac{14}{50}$$

$$\frac{3}{x} = \frac{20}{26}$$

$$\frac{4}{x} = \frac{15}{20}$$

$$\frac{7}{x} = \frac{4}{24}$$

$$\frac{3}{x} = \frac{2}{35}$$

$$\frac{5}{x} = \frac{32}{30}$$

$$\frac{2}{4} = \frac{9}{x}$$

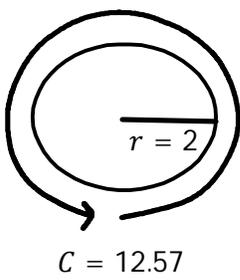
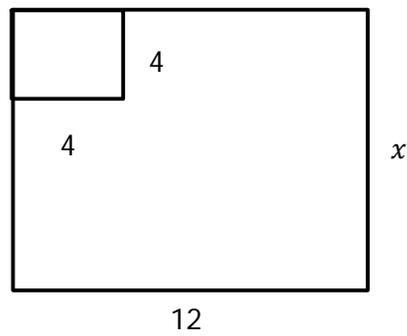
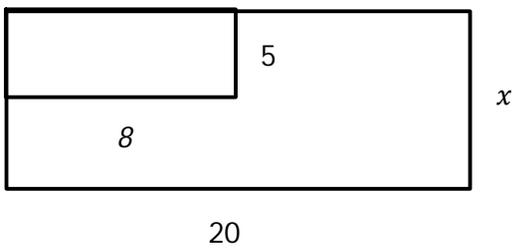
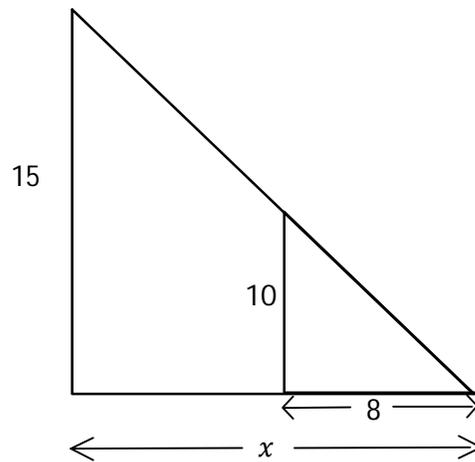
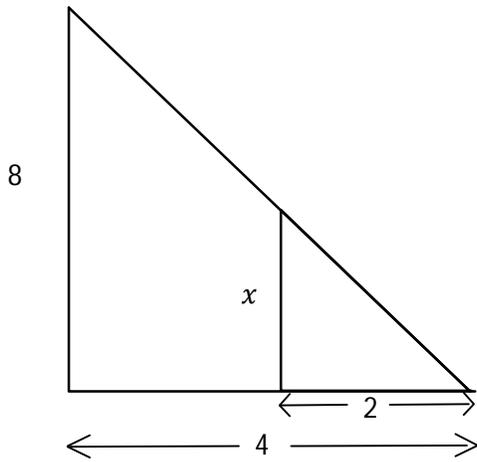
$$\frac{3}{7} = \frac{13}{x}$$

$$\frac{7}{9} = \frac{20}{x}$$

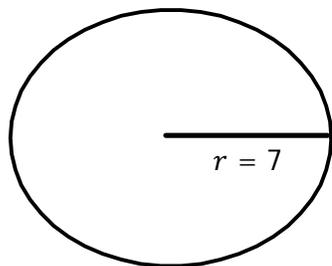
$$\frac{4}{5} = \frac{35}{x}$$

$$\frac{6}{7} = \frac{50}{x}$$

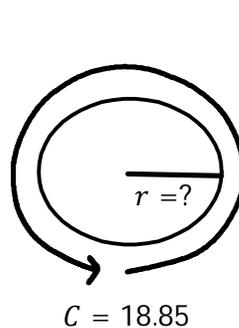
M8 - 2.2 - Similar Shapes HW



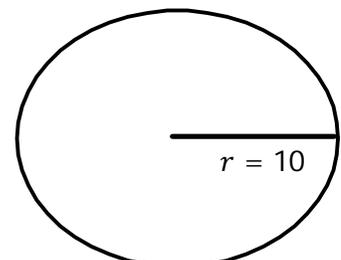
$C = 12.57$



$C = ?$



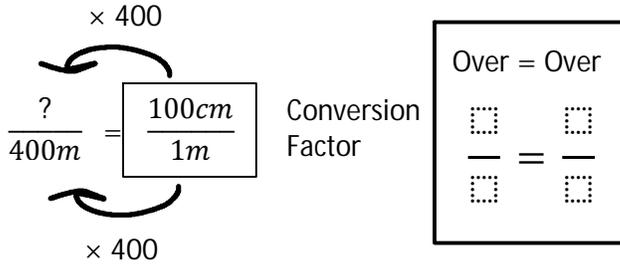
$C = 18.85$



$C = 62.83$

M8 - 2.3 - Conversions Notes/HW

How many Centimeters around a 400 Meter track?



$$100cm \times 400 = 40000cm$$

There are 40000 cm around a 400 m track.

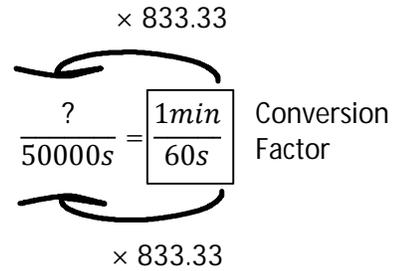
1cm = 10mm
1m = 100cm
1km = 1000m

1min = 60s
1hr = 60min

1in = 2.54cm
1m = 3.3ft
1ft = 30.48cm
1yd = 0.9144m
1mi = 1.609 km

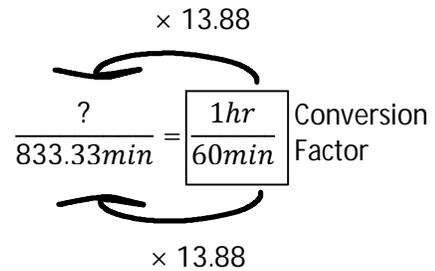
Two Steps

How many Hours in 50000 Seconds?



$$1min \times 833.33 = 833.33min$$

There are 833.33 min in 50000s.



$$1hr \times 13.88 = 13.88hr$$

There are 13.88 hrs in 50,000 s

How many meters in 2400 km?

How many centimetres in 7.6 m?

How many days in 500 hours?

How many kilometres in 800 m?

How many seconds in 400 minutes?

How many inches in 8 cm?

How many centimetres in 3.5 km?

How many days in 10,000 hours?

How many inches in 3 m?

M8 - 2.4 - Unit Rates Notes/HW

Mandy drove 120 km in 2 hours. What is the unit speed?

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

$$\text{Speed} = \frac{120 \text{ km}}{2 \text{ hours}} \rightarrow \frac{120 \text{ km}}{2 \text{ hours}} = \frac{60 \text{ km}}{1 \text{ hour}} = 60 \text{ km/h}$$

$$\text{Unit Rate: } \frac{\#}{1}$$

Devon delivers 45 papers in 30 minutes. What is the unit rate at which he delivers papers?

$$\text{rate} = \frac{\text{quantity}}{\text{time}}$$

$$\text{Rate} = \frac{45 \text{ papers}}{30 \text{ minutes}} = \frac{1.5 \text{ papers}}{1 \text{ minute}}$$

Milk costs \$ 3.20 for a 4 L jug of milk. How much does the milk cost per litre?

$$\text{Cost} = \frac{\$}{\text{unit}}$$

$$\text{Cost} = \frac{\$ 3.20}{4 \text{ L}}$$

$$\frac{\$ 3.20}{4 \text{ L}} = \frac{\$ 0.80}{1 \text{ L}}$$

OR

$$\text{Liters per dollar} \frac{4 \text{ L}}{\$ 3.20} = \frac{1.25 \text{ L}}{1 \$}$$

Find the unit rate.

Fiona drove 400 km in five hours.

Mark reads 200 pages in 300 minutes.

Tatsuma eats 13,000 calories per week.

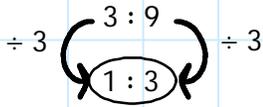
Isabel pays \$42.50 for 35 L of gasoline.

Sarah buys 15 pounds of oats for eight dollars.

Igor drinks a soda with 40 g of sugar in 330 mL.

M8 - 2.5 - Equal Ratios HW

Simplify the following ratios ie. #:1



$6 : 8$

$12 : 20$

$14 : 21$

$6 : 18$

$3 : 6$

$5 : 20$

$4 : 6$

$18 : 36$

$14 : 49$

$6 : 26$

$16 : 20$

$14 : 24$

$21 : 35$

$25 : 30$

$9 : 12$

$12 : 28$

$14 : 18$

$32 : 40$

$54 : 63$

Solve the following ratios.

$$\begin{array}{l} 10:5 \\ x:3 \end{array}$$

$$\begin{array}{l} 7:98 \\ x:400 \end{array}$$

$$\begin{array}{l} 1:15 \\ x:225 \end{array}$$

$$\begin{array}{l} 2:3 \\ x:8 \end{array}$$

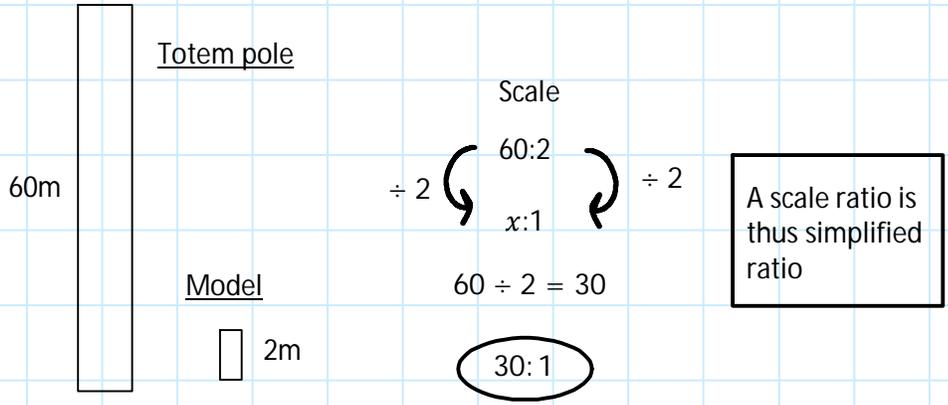
$$\begin{array}{l} 10:9 \\ 8:x \end{array}$$

$$\begin{array}{l} 2:x \\ 4:7 \end{array}$$

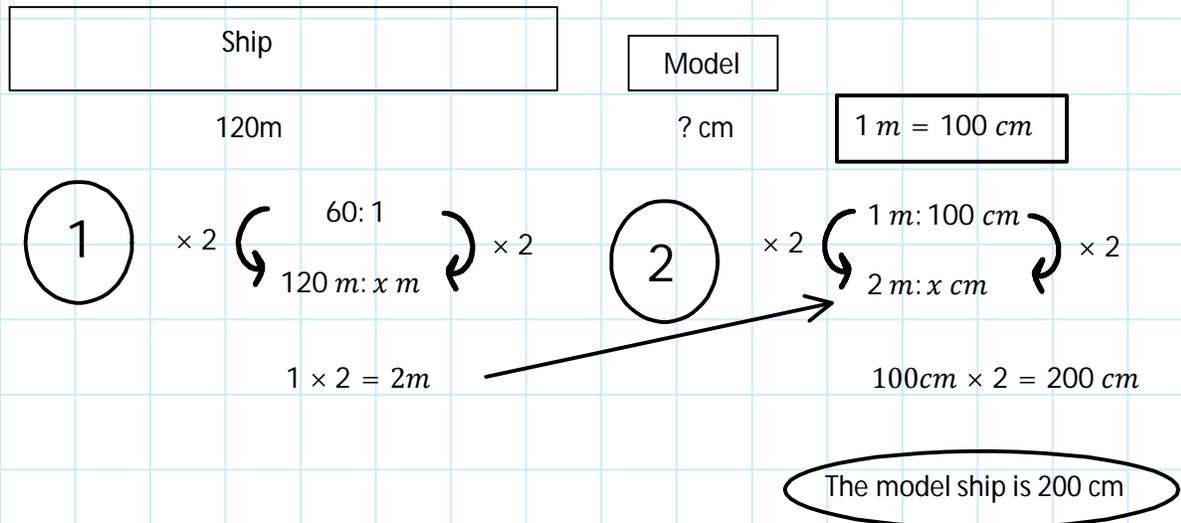
$$\begin{array}{l} x:5 \\ 3:7 \end{array}$$

M8 - 2.6 - Scale Ratio Notes/HW

A totem pole is 60m tall. A model totem pole is 2m tall. What is the scale as a ratio?



A ship is 120m long. How long is the model in centimeters if the scale is 60:1



The Burj Khalifa I Dubai is 830 m tall. A scale model is 2 m tall. What is the scale ratio?

A model of the Titanic is 200 cm long. How long was the Titanic in meters if the scale was 1:135?

M8 - 2.7 - Ratios Marbles HW

There are 13 boys and 15 girls in a classroom. If the school has the same ratio of boys to girls how many girls are in the school with 325 boys? How many students are in the school?

Bruce exercises three days a week. How many days does he exercise in a year?

Angelina does one and a half hours of homework every night. How many hours of homework does she do each week? How many hours does she do each year?

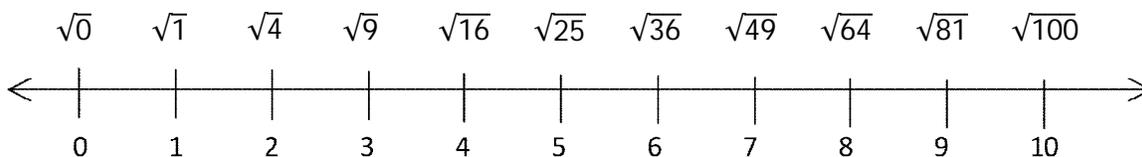
There are 300 total blocks in a toy bin of only dinosaurs and cars. If there are double the number of dinosaurs as cars how many dinosaurs are there?

Humans sleep eight hours each night on average. If a human lives for 80 years how many hours of sleep will they sleep?

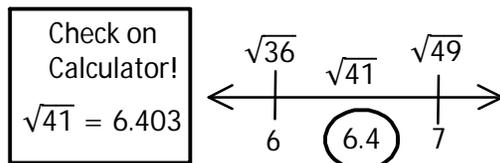
Tectonic plates move 2 centimetres per year on average. How many years did the Pacific ocean of width about 17,700 km take to form from Pangea?

M8 - 3.1 - Estimating Square/Roots HW

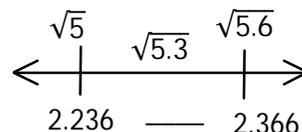
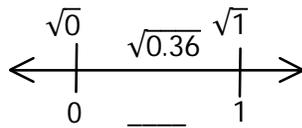
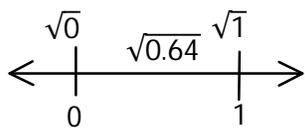
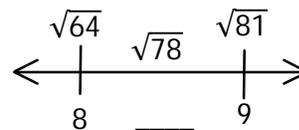
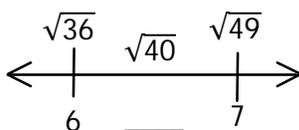
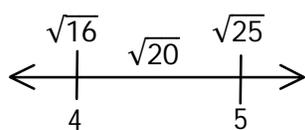
Number Line!



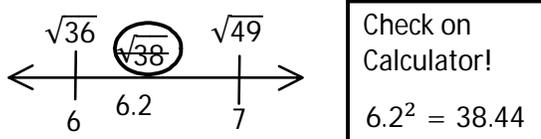
Estimate the square root of 41.



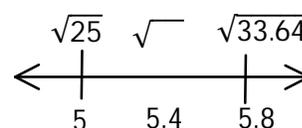
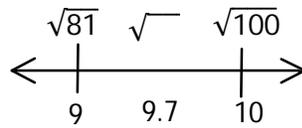
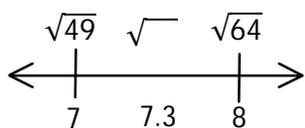
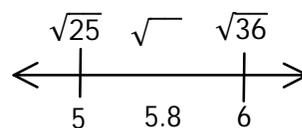
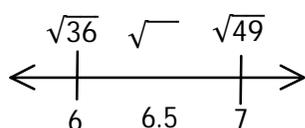
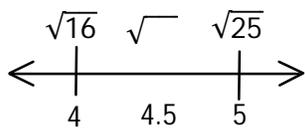
Estimate the square root of the given number to one decimal place.



Estimate the square of 6.2.



Estimate the square of the given number to two decimal places.



M8 - 3.1 - Estimating Square/Square Roots HW

Estimate the square root.

$\sqrt{50} =$

$\sqrt{40} =$

$\sqrt{81} =$

$\sqrt{35} =$

$\sqrt{64} =$

$\sqrt{77} =$

$\sqrt{20} =$

$\sqrt{0.81} =$

Estimate the following squares.(Whose square root is the number?)

$3.1^2 =$

$3.5^2 =$

$5.6^2 =$

$8.4^2 =$

$7.6^2 =$

$15^2 =$

$26^2 =$

$2.2^2 =$

M8 - 3.2 - Solving Roots Prime Factorization HW

Solve using prime factorization.

$$\sqrt{9} =$$

$$\sqrt{25} =$$

$$\sqrt{400}$$

$$\sqrt{64} =$$

$$\sqrt{169} =$$

$$\sqrt{-4} =$$

$$\sqrt[3]{8} =$$

$$\sqrt[3]{64} =$$

$$\sqrt[3]{-64} =$$

$$\begin{aligned}\sqrt{1} &= \\ \sqrt{81} &= \\ \sqrt{100} &= \\ \sqrt{49} &= \end{aligned}$$

$$\begin{aligned}\sqrt{144} &= \\ \sqrt{121} &= \\ \sqrt{-36} &= \\ \sqrt{16} &= \end{aligned}$$

$$\begin{aligned}\sqrt[3]{512} &= \\ \sqrt[3]{27} &= \\ \sqrt[3]{-1} &= \\ \sqrt[3]{1} &= \end{aligned}$$

$$\begin{aligned}\sqrt[3]{343} &= \\ \sqrt[3]{216} &= \\ \sqrt[3]{125} &= \\ \sqrt[3]{729} &= \end{aligned}$$

M8 - 3.2 - Solving Roots Calculator HW

Solve using your calculator.

$\sqrt{25} =$

$\sqrt{49} =$

$\sqrt{64} =$

$\sqrt{16} =$

$\sqrt{100} =$

$\sqrt{9} =$

$\sqrt{121} =$

$\sqrt{1} =$

$\sqrt{36} =$

$\sqrt{400} =$

$\sqrt{4} =$

$\sqrt{196} =$

$\sqrt{144} =$

$\sqrt{256} =$

$\sqrt{81} =$

$\sqrt{225} =$

$\sqrt{324} =$

$\sqrt{169} =$

$\sqrt{784} =$

$\sqrt{484} =$

$\sqrt{676} =$

$\sqrt{576} =$

$\sqrt{729} =$

$\sqrt{529} =$

$\sqrt{361} =$

$\sqrt{289} =$

$\sqrt{625} =$

$\sqrt{441} =$

Solve using your calculator.

$\sqrt[3]{8} =$

$\sqrt[3]{729} =$

$\sqrt[3]{27} =$

$\sqrt[3]{64} =$

$\sqrt[3]{216} =$

$\sqrt[3]{1} =$

$\sqrt[3]{343} =$

$\sqrt[3]{125} =$

$\sqrt[3]{512} =$

$\sqrt[3]{8000} =$

$\sqrt[3]{2744} =$

$\sqrt[3]{1331} =$

$\sqrt[3]{13824} =$

$\sqrt[3]{10648} =$

$\sqrt[3]{12167} =$

$\sqrt[3]{6859} =$

$\sqrt[3]{1728} =$

$\sqrt[3]{9261} =$

$\sqrt[3]{4096} =$

$\sqrt[3]{3375} =$

$\sqrt[3]{5832} =$

$\sqrt[3]{21952} =$

$\sqrt[3]{17576} =$

$\sqrt[3]{19683} =$

$\sqrt[3]{2197} =$

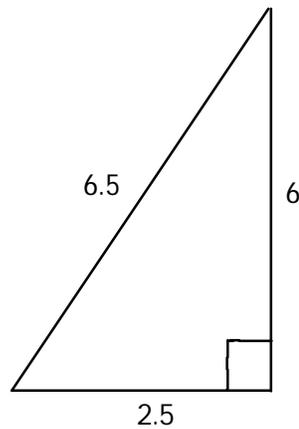
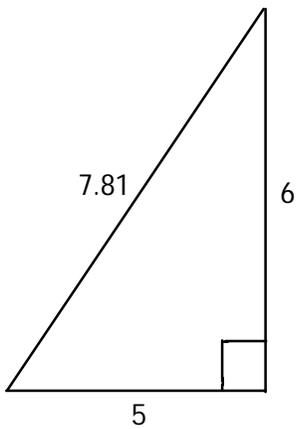
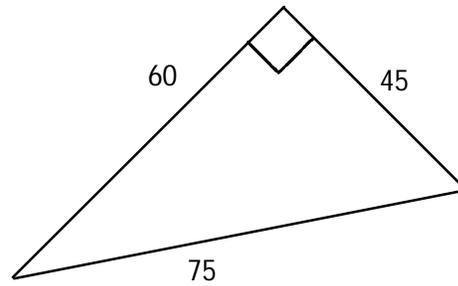
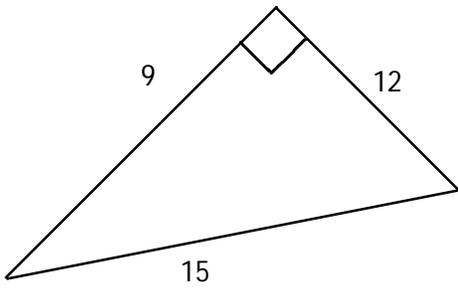
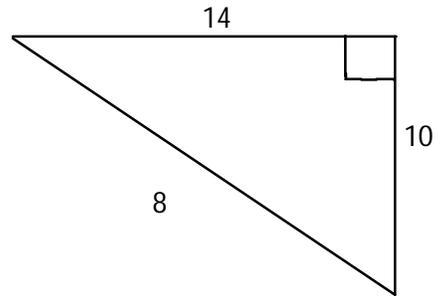
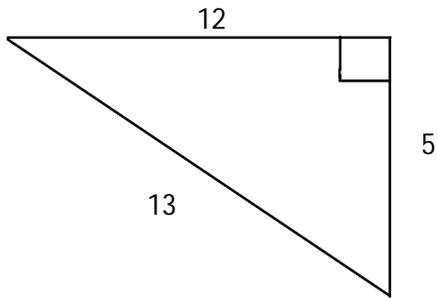
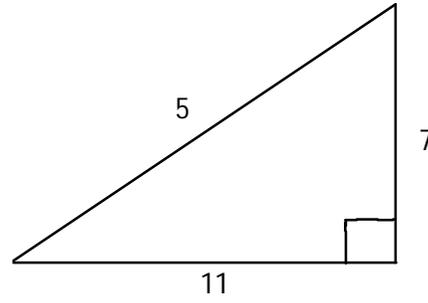
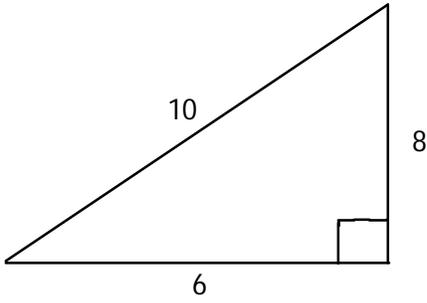
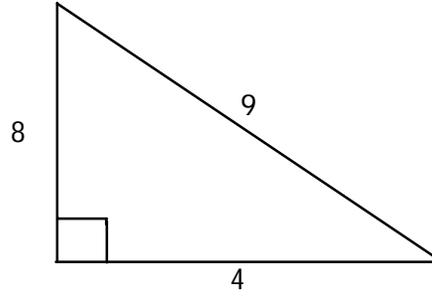
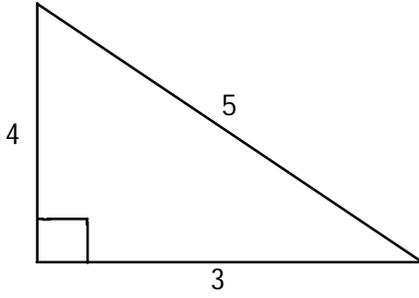
$\sqrt[3]{4913} =$

$\sqrt[3]{15625} =$

$\sqrt[3]{1000} =$

M8 - 3.3 - Identifying a , b and c HW

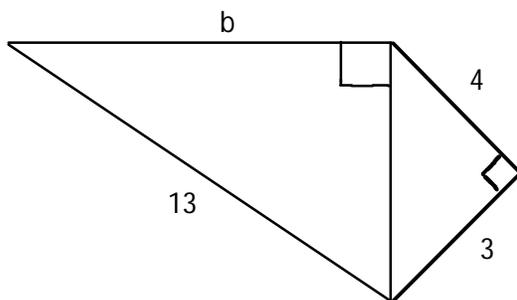
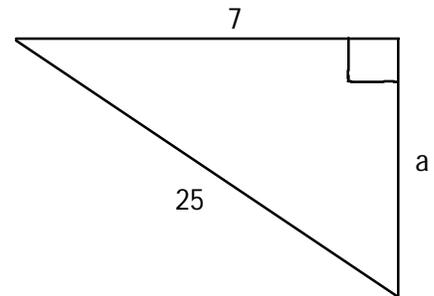
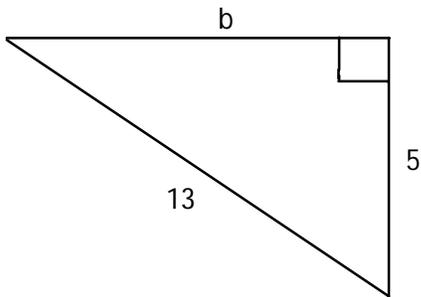
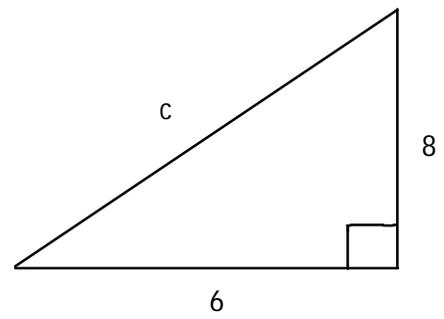
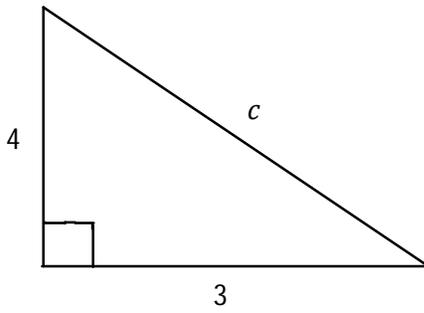
Label the triangle a , b , c , appropriately.



M8 - 3.3 - Pythagoras' Theorem HW

Using Pythagoras' Theorem, find the missing side.

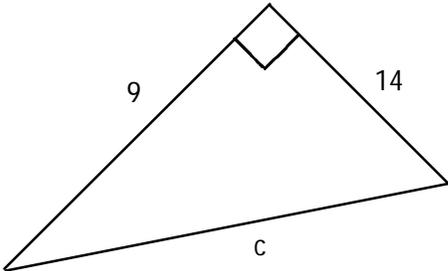
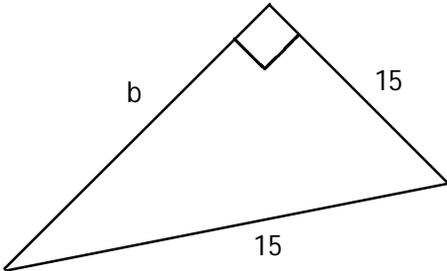
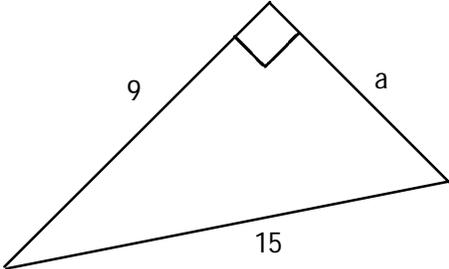
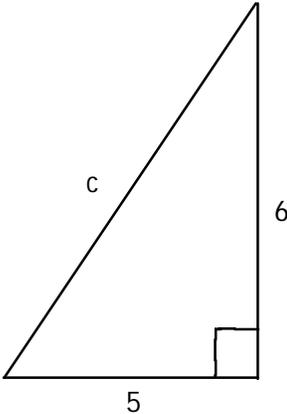
Pythagoras' Theorem: $a^2 + b^2 = c^2$



M8 - 3.3 - Pythagoras' Theorem (Calc) HW

Using Pythagoras' Theorem, find the missing side.

Pythagoras' Theorem: $a^2 + b^2 = c^2$



M8 - 4.1 - Fractions->Decimals HW

Convert from fractions to decimals.

$$\frac{1}{10} = 0.1$$

$$\frac{1}{2} = \frac{5}{10} = 0.5$$

$$\frac{1}{5} =$$

$$\frac{1}{4} =$$

$$\frac{2}{5} =$$

$$\frac{3}{20} =$$

$$\frac{3}{5} =$$

$$\frac{4}{5} =$$

$$\frac{3}{4} =$$

$$\frac{1}{20} =$$

$$\frac{1}{25} =$$

$$\frac{2}{25} =$$

$$\frac{3}{25} =$$

$$\frac{3}{50} =$$

$$\frac{7}{50} =$$

$$\frac{3}{100} =$$

$$\frac{3}{1000} =$$

$$\frac{1}{500} =$$

$$\frac{303}{1000} =$$

$$\frac{31}{100} =$$

Convert from fractions to repeating decimals.

$$\frac{1}{9} = 0.\bar{1}$$

$$\frac{2}{3} =$$

$$\frac{1}{3} =$$

$$\frac{1}{6} =$$

$$\frac{4}{9} =$$

$$\frac{5}{6} =$$

$$\frac{2}{9} =$$

$$\frac{7}{9} =$$

$$\frac{5}{9} =$$

$$\frac{8}{9} =$$

Convert from mixed fractions to decimals.

$$1\frac{1}{3} = 1 + 0.\bar{3} = 1.\bar{3}$$

$$2\frac{1}{2} =$$

$$5\frac{1}{5} =$$

$$3\frac{1}{4} =$$

$$4\frac{3}{4} =$$

$$3\frac{2}{5} =$$

$$5\frac{2}{3} =$$

$$3\frac{1}{9} =$$

$$4\frac{2}{9} =$$

Convert from an improper fraction to a mixed fraction, then to a decimal.

$$\frac{11}{5} = 2\frac{1}{5} = 2.2$$

$$\frac{3}{2} =$$

$$\frac{5}{2} =$$

$$\frac{7}{2} =$$

$$\frac{9}{2} =$$

$$\frac{4}{3} =$$

$$\frac{5}{3} =$$

$$\frac{7}{3} =$$

$$\frac{8}{3} =$$

$$\frac{5}{4} =$$

$$\frac{7}{6} =$$

$$\frac{7}{4} =$$

$$\frac{9}{4} =$$

$$\frac{8}{5} =$$

$$\frac{7}{5} =$$

$$\frac{10}{9} =$$

$$\frac{9}{5} =$$

$$\frac{6}{5} =$$

M8 - 4.1 - Fractions->Decimals HW

Convert from fractions to decimals using long division or your calculator, to three decimal places.

$$\frac{1}{6} = 0.1\bar{6}$$

$$\frac{1}{8} = 0.125$$

$$\frac{7}{8} =$$

$$\frac{2}{11} =$$

$$\frac{5}{6} =$$

$$\frac{5}{7} =$$

$$\frac{5}{8} =$$

$$\frac{3}{11} =$$

$$\frac{3}{7} =$$

$$\frac{6}{7} =$$

$$\frac{1}{11} =$$

$$\frac{4}{7} =$$

$$\frac{3}{8} =$$

$$\frac{1}{7} =$$

$$\frac{2}{7} =$$

$$\frac{8}{7} =$$

$$\frac{9}{7} =$$

$$\frac{10}{7} =$$

M8 - 4.1 - Decimals->Fractions HW

Convert from decimals to fractions

$0.1 = \frac{1}{10}$

$0.5 = \frac{5}{10} = \frac{1}{2}$

$0.2 =$

$0.25 =$

$0.4 =$

$0.15 =$

$0.6 =$

$0.8 =$

$0.75 =$

$0.05 =$

$0.04 =$

$0.08 =$

$0.12 =$

$0.06 =$

$0.14 =$

$0.03 =$

$0.003 =$

$0.002 =$

$0.303 =$

$0.31 =$

Convert from repeating decimals to fractions.

$0.\bar{1} = \frac{1}{9}$

$0.\bar{6} =$

$0.\bar{3} =$

$0.1\bar{6} =$

$0.\bar{4} =$

$0.8\bar{3} =$

$0.\bar{2} =$

$0.\bar{7} =$

$0.\bar{5} =$

$0.\bar{8} =$

Convert from decimals to mixed fractions.

$1.\bar{3} = 1\frac{1}{3}$

$2.\bar{5} =$

$5.\bar{2} =$

$3.2\bar{5} =$

$3.4 =$

$5.\bar{6} =$

$3.\bar{1} =$

$4.\bar{2} =$

$4.7\bar{5} =$

Convert from a decimal to a mixed fraction, then to an improper fraction.

$2.2 =$

$1.5 =$

$2.5 =$

$3.5 =$

$4.5 =$

$1.\bar{3} =$

$1.\bar{6} =$

$2.\bar{3} =$

$2.\bar{6} =$

$1.25 =$

$1.1\bar{6} =$

$1.75 =$

$2.25 =$

$1.6 =$

$1.2 =$

$1.4 =$

$1.\bar{1} =$

$1.8 =$

M8 - 4.1 - Decimals->% HW

Convert from decimals to percentages.

$0.1 =$

$0.5 =$

$0.2 =$

$0.25 =$

$0.4 =$

$0.15 =$

$0.6 =$

$0.8 =$

$0.75 =$

$0.05 =$

$0.04 =$

$0.08 =$

$0.12 =$

$0.06 =$

$0.14 =$

$0.03 =$

$0.003 =$

$0.002 =$

$0.303 =$

$0.31 =$

$0.200 =$

$0.123 =$

$0.452 =$

$0.195 =$

$0.322 =$

$0.400 =$

$0.05 =$

$0.02 =$

$0.005 =$

$0.109 =$

$0.370 =$

$0.823 =$

$0.764 =$

$0.631 =$

$0.540 =$

Convert from repeating decimals to repeating percentages.

$0.\bar{1} =$

$0.\bar{6} =$

$0.\bar{3} =$

$0.1\bar{6} =$

$0.\bar{4} =$

$0.8\bar{3} =$

$0.\bar{2} =$

$0.\bar{7} =$

$0.\bar{5} =$

$0.\bar{8} =$

$5.\bar{6} =$

$3.\bar{1} =$

$4.\bar{2} =$

$2.\bar{6} =$

$2.\bar{3} =$

$1.\bar{6} =$

$1.1\bar{6} =$

$1.\bar{3} =$

$1.\bar{1} =$

$1.\bar{3} =$

Convert from decimals to percentages.

$3.4 =$

$2.5 =$

$5.2 =$

$3.25 =$

$4.75 =$

$2.2 =$

$1.5 =$

$2.5 =$

$3.5 =$

$4.5 =$

$1.75 =$

$2.25 =$

$1.6 =$

$1.25 =$

$1.2 =$

$1.4 =$

$1.8 =$

$4.5 =$

$10 =$

$10.4 =$

$2.0 =$

$3 =$

$17 =$

$100 =$

$350 =$

M8 - 4.1 - %->Decimals HW

Convert from a percentage to a decimal.

$10\% = 0.1$

$60\% = 0.6$

$20\% =$

$80\% =$

$50\% =$

$30\% =$

$70\% =$

$40\% =$

$90\% =$

$25\% =$

$75\% =$

$89\% =$

$15\% =$

$32\% =$

$62\% =$

$45\% =$

$11.\bar{1}\% =$

$77.\bar{7}\% =$

$33.\bar{3}\% =$

$88.\bar{8}\% =$

$55.\bar{5}\% =$

$22.\bar{2}\% =$

$66.\bar{6}\% =$

$44.\bar{4}\%$

$150\% =$

$120\% =$

$125\% =$

$225\% =$

$1000\% =$

$570\% =$

$1200\% =$

$1250\% =$

$1\% =$

$2\% =$

$5\% =$

$0.3\% =$

$0.5\% =$

$0.\bar{6}\% =$

$9\% =$

$7\% =$

$14\frac{1}{2}\% =$

$128.7\% =$

$25.2\% =$

$130.4\% =$

M8 - 4.1 - Fractions->% HW

Convert from fractions to percentages.

$$\frac{4}{5} = \frac{80}{100} = 0.8 = 80\%$$

$$\frac{1}{5} = \frac{2}{10} = 0.2 = 20\%$$

$$\frac{2}{25} =$$

$$\frac{3}{20} =$$

$$\frac{31}{100} =$$

$$\frac{1}{2} =$$

$$\frac{1}{25} =$$

$$\frac{3}{5} =$$

$$\frac{3}{25} =$$

$$\frac{1}{10} =$$

$$\frac{303}{1000} =$$

$$\frac{1}{500} =$$

$$\frac{2}{5} =$$

$$\frac{3}{1000} =$$

$$\frac{3}{50} =$$

$$\frac{7}{50} =$$

$$\frac{1}{4} =$$

$$\frac{3}{4} =$$

$$\frac{1}{20} =$$

$$\frac{3}{100} =$$

Convert from fractions to repeating percentages.

$$\frac{5}{9} =$$

$$\frac{2}{3} =$$

$$\frac{1}{3} =$$

$$\frac{1}{6} =$$

$$\frac{2}{9} =$$

$$\frac{5}{6} =$$

$$\frac{7}{9} =$$

$$\frac{1}{9} =$$

$$\frac{4}{9} =$$

$$\frac{8}{9} =$$

Convert from mixed fractions to percentages.

$$4\frac{3}{4} =$$

$$2\frac{1}{2} =$$

$$5\frac{2}{3} =$$

$$3\frac{1}{4} =$$

$$3\frac{1}{9} =$$

$$1\frac{1}{3} =$$

$$3\frac{2}{5} =$$

$$4\frac{2}{9} =$$

$$5\frac{1}{5} =$$

Convert from an improper fraction to a mixed fraction, then to a percentage.

$$\frac{9}{4} =$$

$$\frac{5}{2} =$$

$$\frac{9}{5} =$$

$$\frac{7}{2} =$$

$$\frac{6}{5} =$$

$$\frac{4}{3} =$$

$$\frac{5}{3} =$$

$$\frac{7}{6} =$$

$$\frac{8}{3} =$$

$$\frac{7}{4} =$$

$$\frac{5}{4} =$$

$$\frac{3}{2} =$$

$$\frac{7}{5} =$$

$$\frac{11}{5} =$$

$$\frac{9}{2} =$$

$$\frac{10}{9} =$$

$$\frac{7}{3} =$$

$$\frac{8}{5} =$$

M8 - 4.1 - %->Fractions HW

Convert from a percentage to a fraction and simplify.

$10\% =$

$20\% =$

$30\% =$

$40\% =$

$50\% =$

$60\% =$

$70\% =$

$80\% =$

$90\% =$

$25\% =$

$75\% =$

$89\% =$

$15\% =$

$32\% =$

$62\% =$

$45\% =$

$150\% =$

$120\% =$

$125\% =$

$225\% =$

$1000\% =$

$570\% =$

$1200\% =$

$1250\% =$

Express as a fraction over 9.

$11.\bar{1}\% =$

$22.\bar{2}\% =$

$33.\bar{3}\% =$

$44.\bar{4}\%$

$55.\bar{5}\% =$

$66.\bar{6}\% =$

$77.\bar{7}\% =$

$88.\bar{8}\% =$

Express as a fraction over 6.

$16.66\% =$

$33.33\% =$

$50\% =$

$66.66\% =$

$83.33\% =$

Express as a fraction over 3.

$33.33\% =$

$66.66\% =$

M8 - 4.2 - "is" over "of" = ?% over 100 HW

Calculate the following percentages.

12 is what % of 100?

30 is what % of 50?

36 is what % of 108?

15 is what % of 50?

46 is what % of 150?

30 is what % of 120?

20 is what % of 200?

70 is what % of 120?

45 is what % of 170?

7 is what % of 40?

150 is what % of 30?

250 is what % of 80?

M8 - 4.2 - % "of" = "?is" HW

Calculate the following.

What is 20% of 200?

What is 15% of 800?

What is 2% of 300?

What is 0.50% of 10?

What is 12% of 15?

What is 4% of 2?

What is 8% of 400?

What is 250% of 500?

What is 1% of 100?

What is 2% of 200?

What is 1.2% of 500?

What is 7% of 7?

M8 - 4.2 - "is" % "?of" HW

40 is 40% of what number?

60 is 30% of what number?

30 is 60% of what number?

40 is what percent of 200?

30 is what percent of 150?

64 is what percent of 400?

150 is 20% of what number?

60% of what number is 48?

54% of what number is 5.4?

70 is what percent of 350?

80 is what percent of 640?

344 is what percent of 860?

M8 - 4.2 - Tax/Discount Word Problems Hard HW

What is the 12% tax on \$80 shoes?
What is the total cost?

What is the 14% tax on \$100 pants?
What is the total cost?

What is a 25% discount on a \$200
phone with no tax?

What is the cost of a 25% discount on a
\$200 phone with 12% tax?

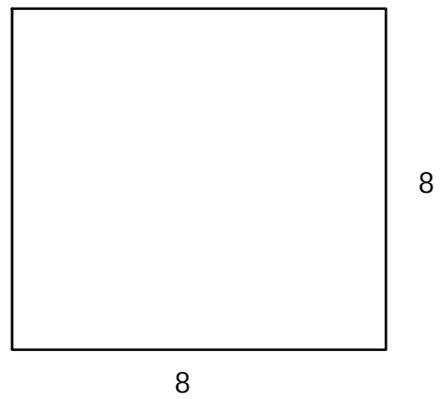
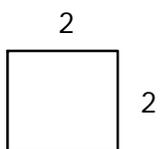
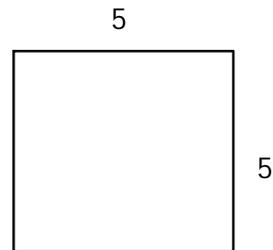
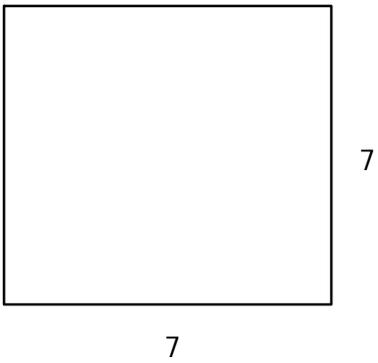
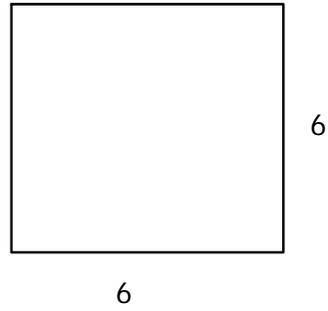
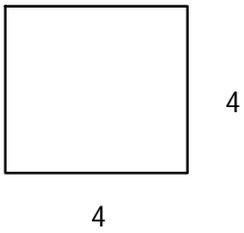
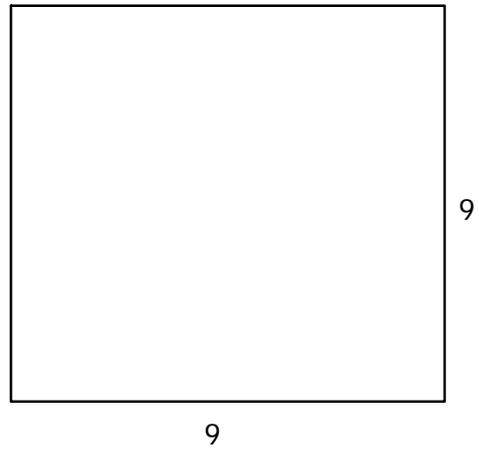
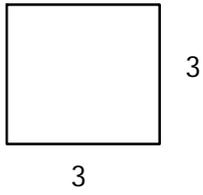
A 5% discount on a computer is \$190.
How much was the original cost?

After a 12% tax, the price of a T.V is
\$297. What was the original cost?

Nick ate 3 more hotdogs than Bill which was 30% more. How many total hotdogs did they eat?

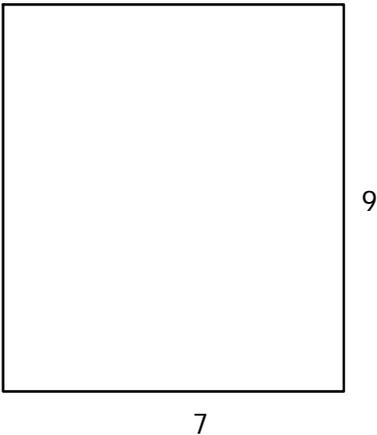
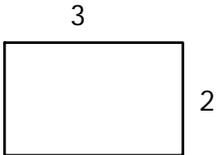
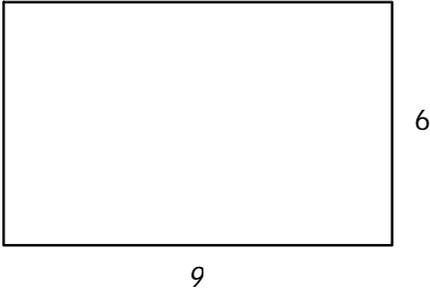
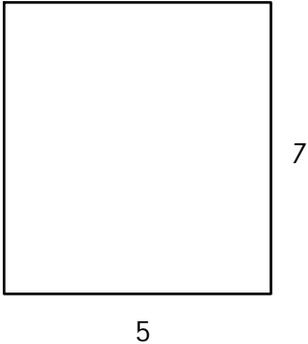
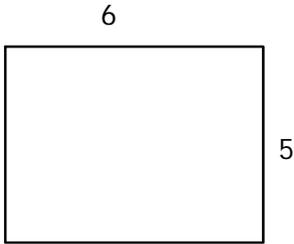
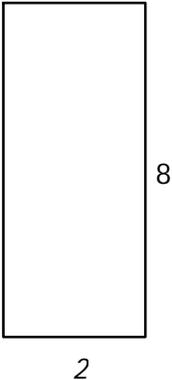
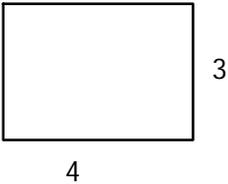
M8 - 5.0 - Square Perimeter Area HW

Find the following perimeter and areas.



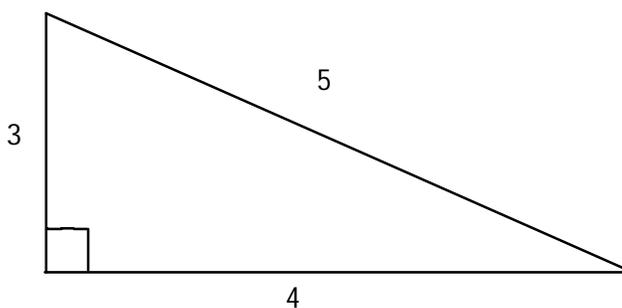
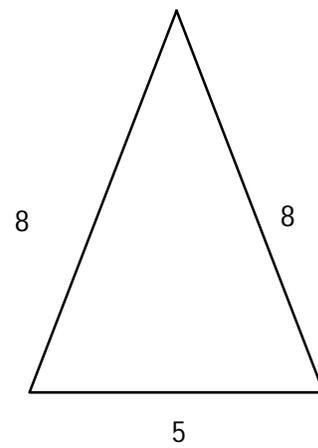
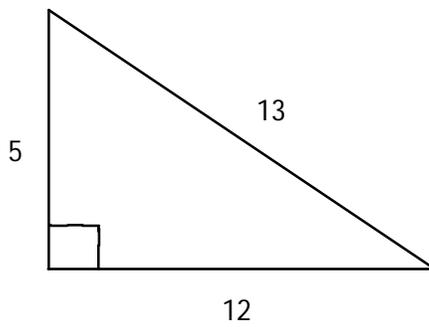
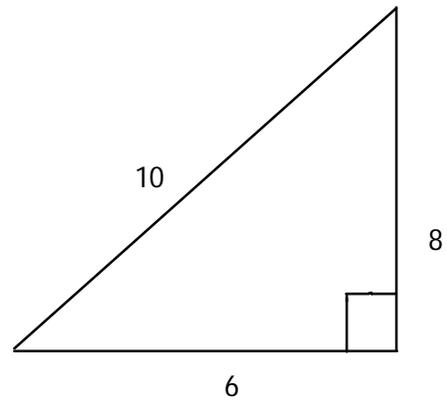
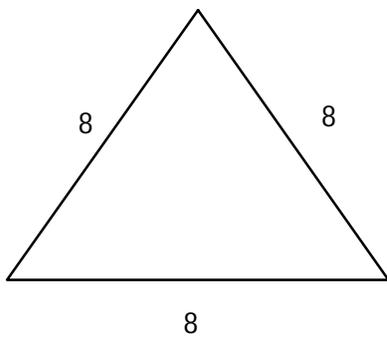
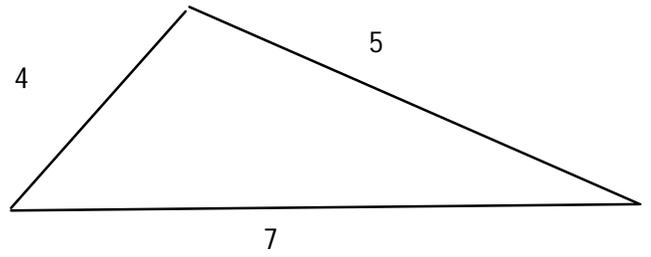
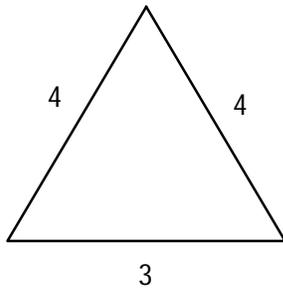
M8 - 5.0 - Rectangle Perimeter Area HW

Find the following perimeter and areas.



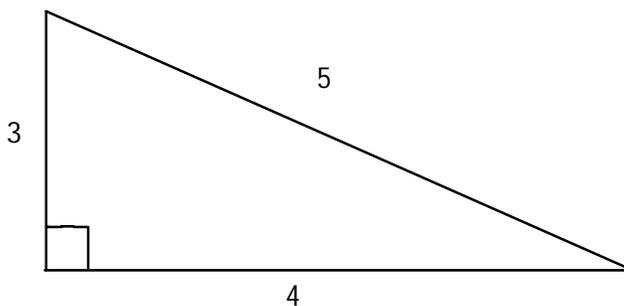
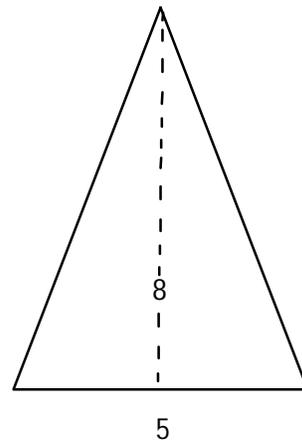
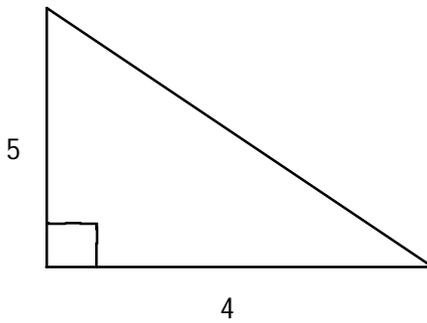
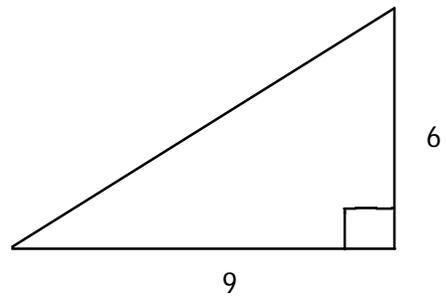
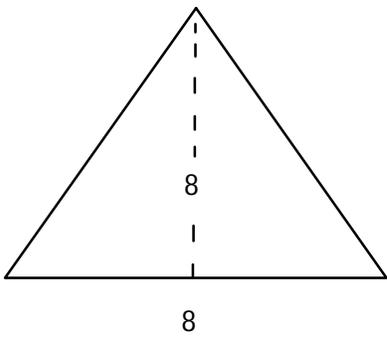
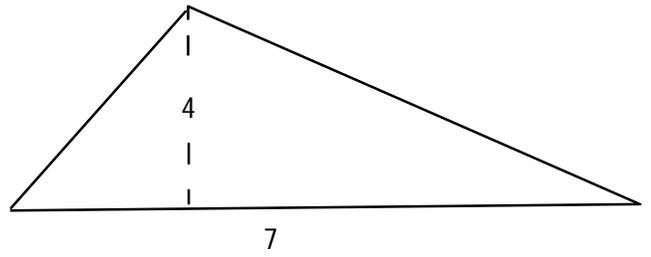
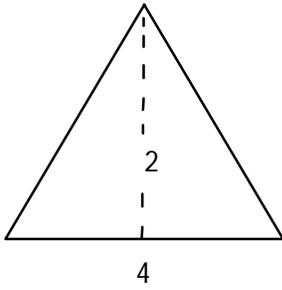
M8 - 5.0 - Triangle Perimeter HW

Find the following perimeters.



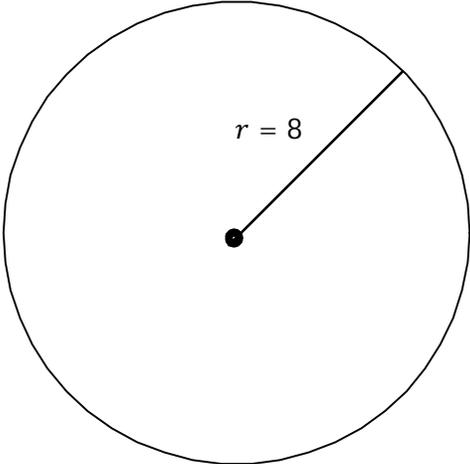
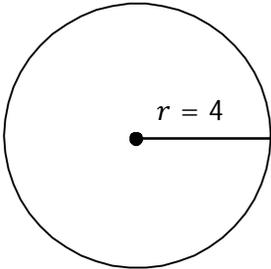
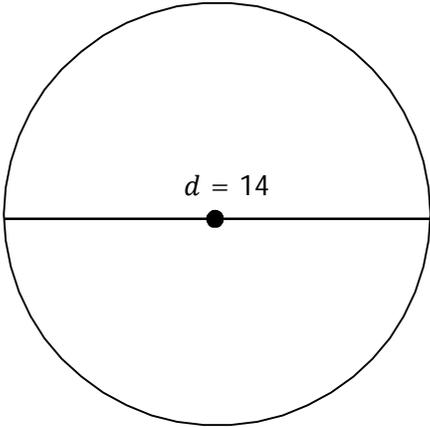
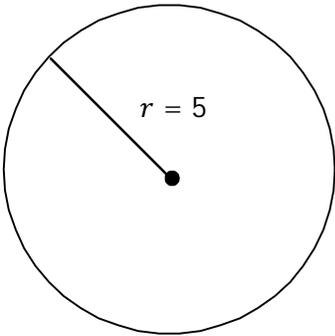
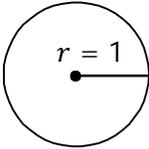
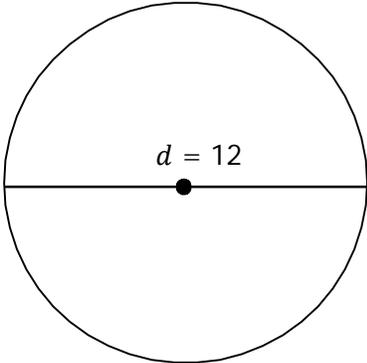
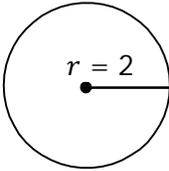
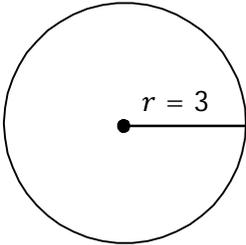
M8 - 5.0 - Triangle Area HW

Find the following areas



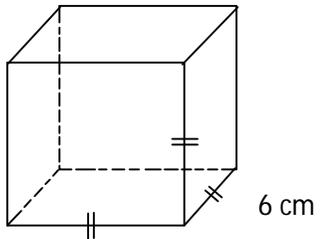
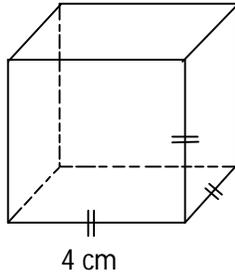
M8 - 5.0 - Circle Finding Area HW

find the circumference and area of the following circles



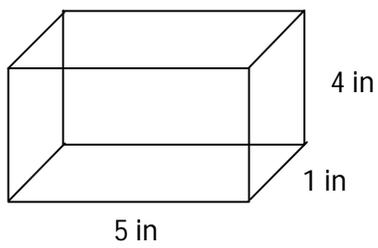
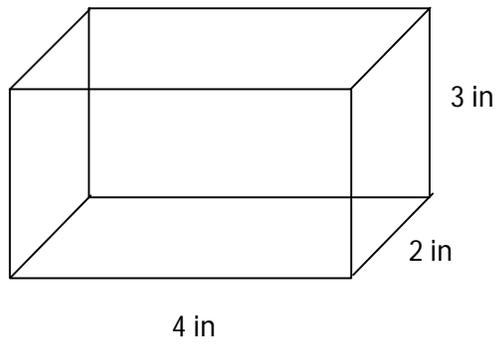
M8 - 5.2 - Cube Surface Area HW

Find the surface area of this cube



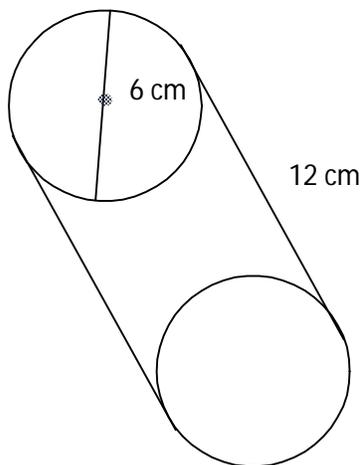
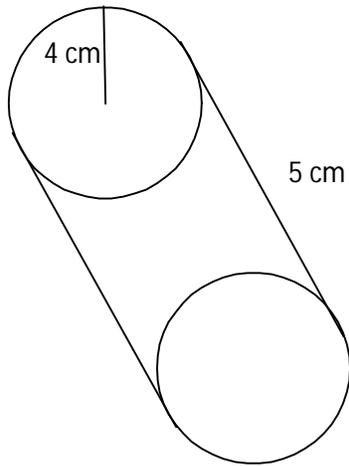
M8 - 5.2 - Surface Area Rectangular Prism HW

Calculate the following surface area by drawing the shape flat, labeling the dimensions, then calculating the surface area.



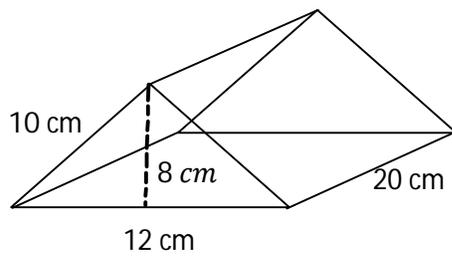
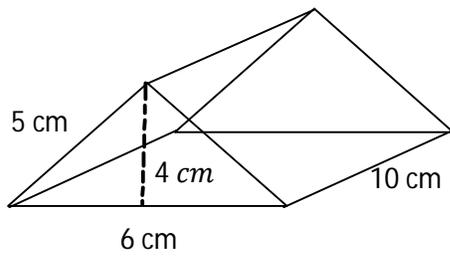
M8 - 5.3 - Surface Area Cylinder HW

Calculate the following surface area by drawing the shape flat, labeling the dimensions, then calculating the surface area.



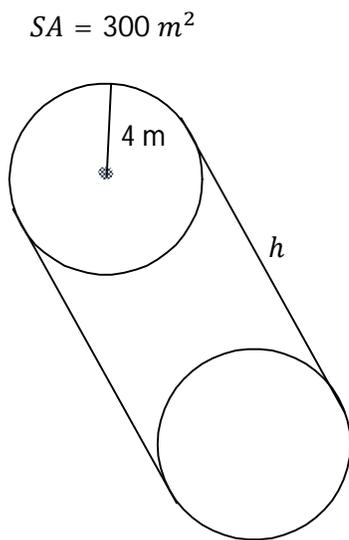
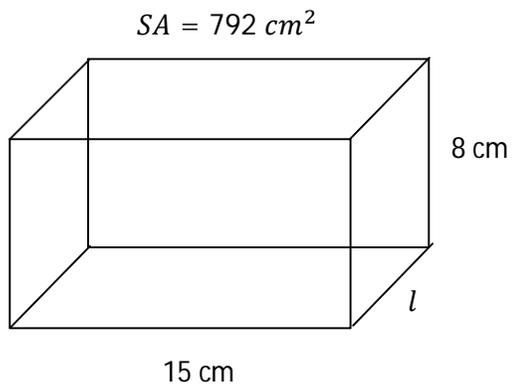
M8 - 5.3 - Triangular Prism Surface Area HW

Find the surface area of this triangular prism



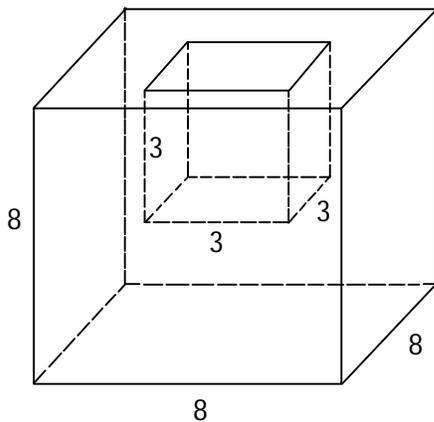
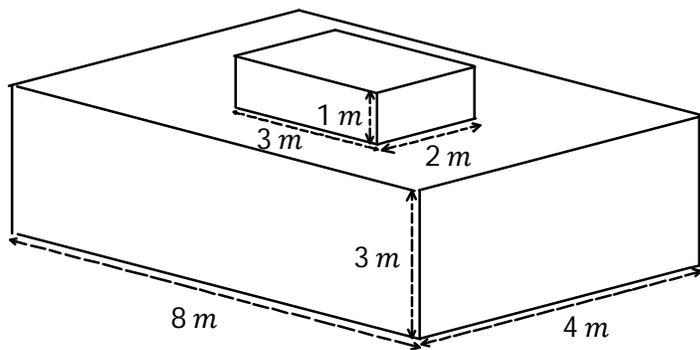
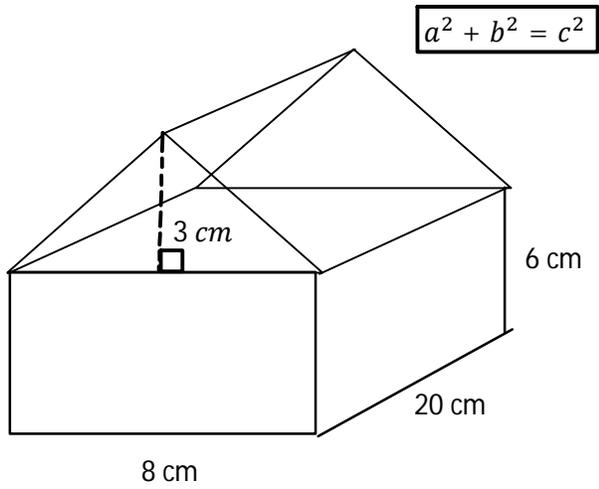
M8 - 5.4 - Surface Area Missing Dimension HW

Find the missing dimension of the following shapes.

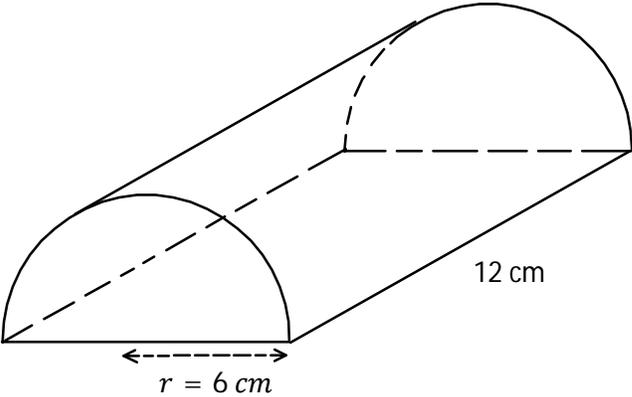
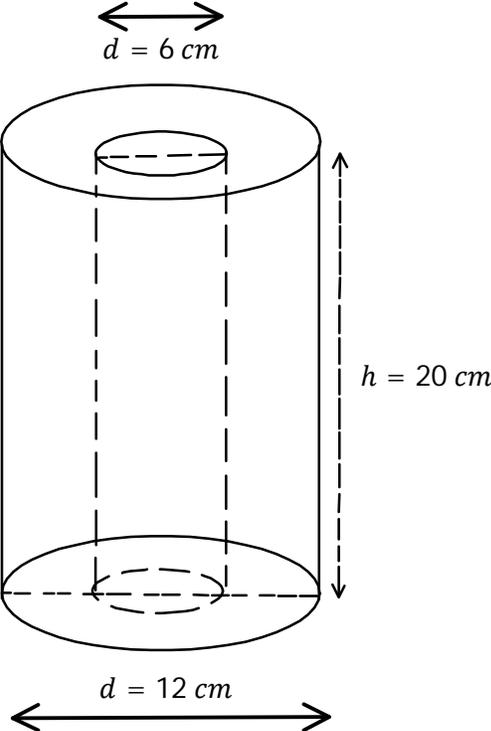


M8 - 5.5 - Rect/Tri Volume Composite Shapes HW

Calculate the surface area of the following shapes.

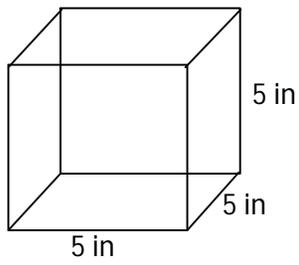


M8 - 5.5 - Cyl Volume Composite Shapes HW



M8 - 7.1 - Cube Volume HW

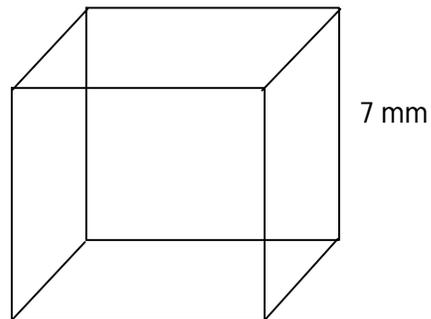
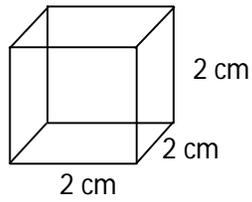
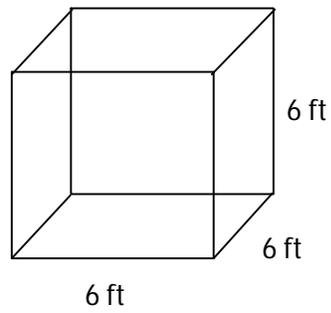
Calculate the volume in the specified units.



$$V = l \times w \times h$$

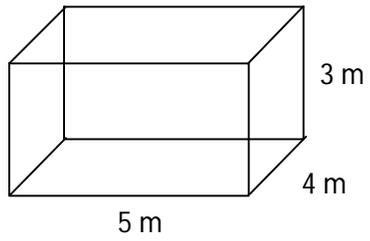
$$V = 5 \times 5 \times 5$$

$$V = 125 \text{ in}^3$$

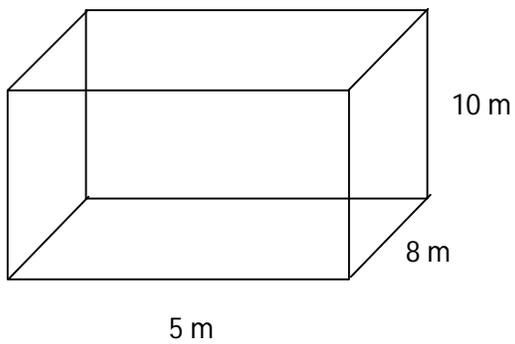
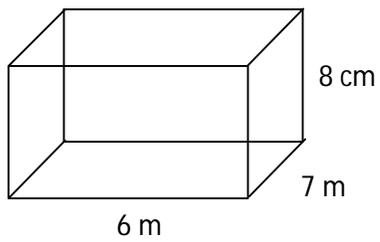
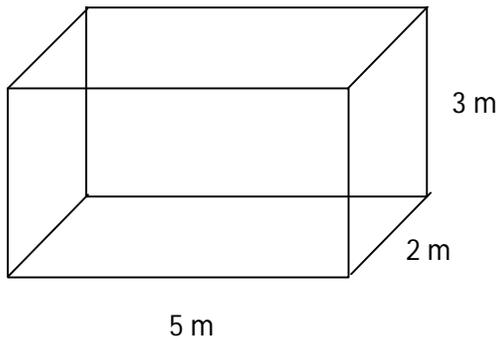


M8 - 7.1 - Rectangular Prism Volume HW

Calculate the volume in the specified units.

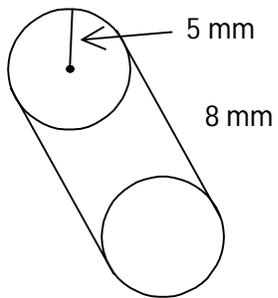


$$V = 3 \times 4 \times 5$$
$$V = 60 m^3$$

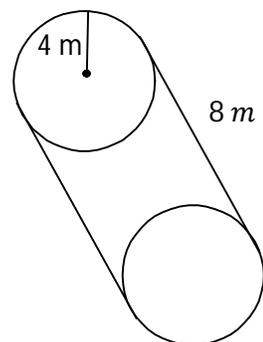
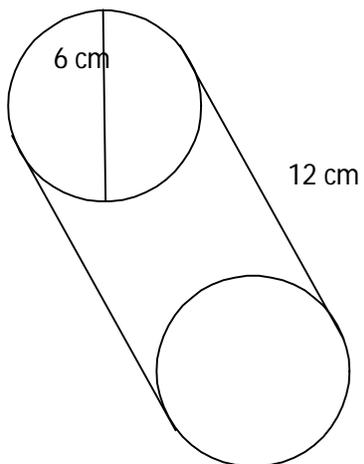
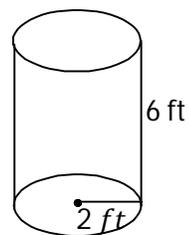
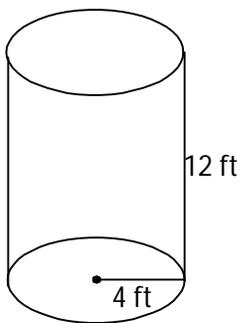


M8 - 7.2 - Cylinder Volume HW

Calculate the volume of the following cylinders.

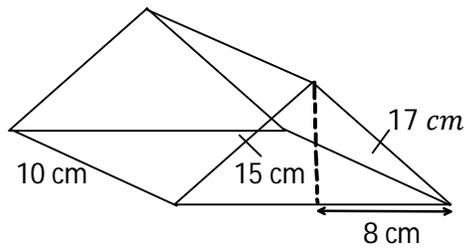
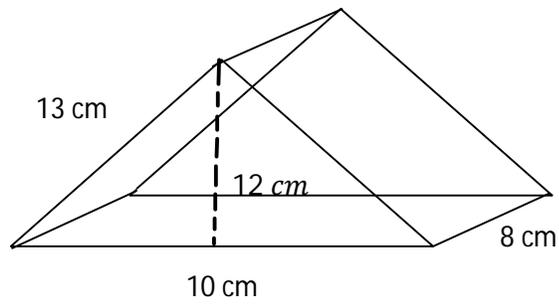
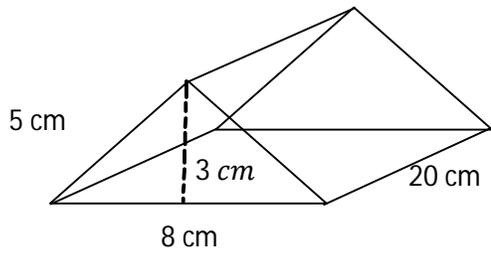


$$\begin{aligned}V &= A_{base} \times height \\V &= \pi r^2 \times h \\V &= \pi(5)^2 \times 8 \\V &= 25\pi \times 8 \\V &= 200\pi \\V &= 628.32 \text{ mm}^3\end{aligned}$$



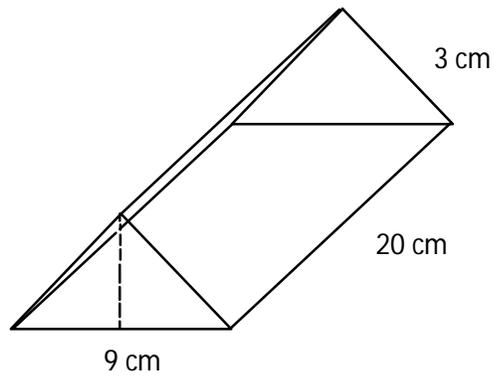
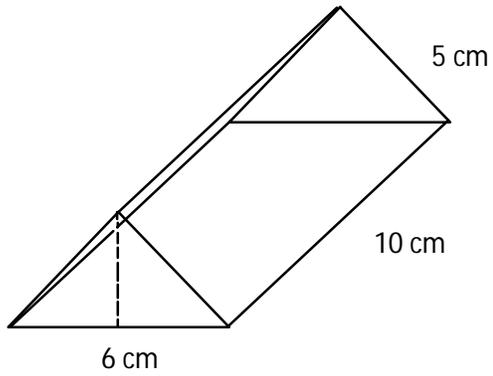
M8 - 7.2 - Triangular Prism Volume HW

Calculate the volume.



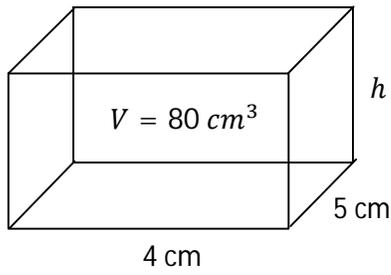
M8 - 7.2 - Volume (Tri Pythag Integers/Sqrt) HW

Find the following volumes

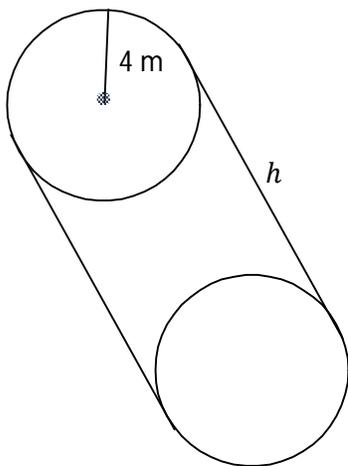


M8 - 7.3 - Rectangular Prism Missing Length HW

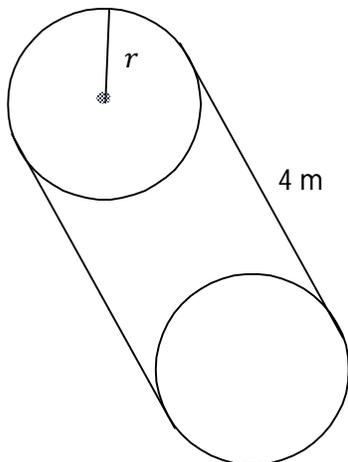
Find the missing length for the shapes below.



$$V = 400 \text{ m}^3$$

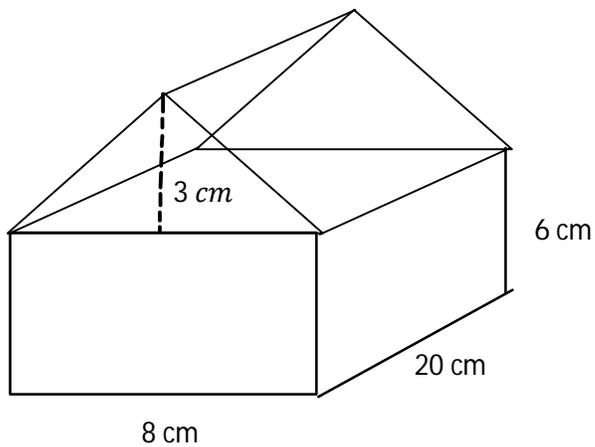
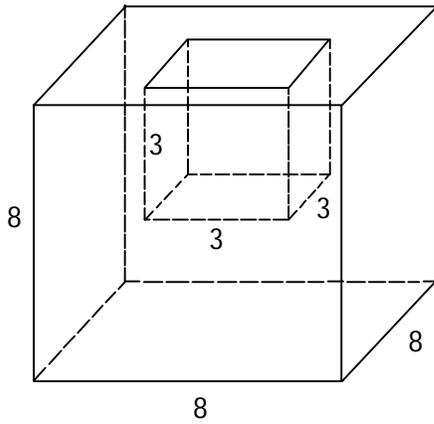
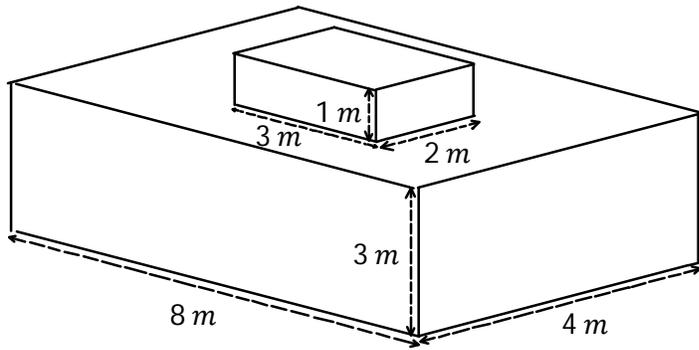


$$V = 400 \text{ m}^3$$

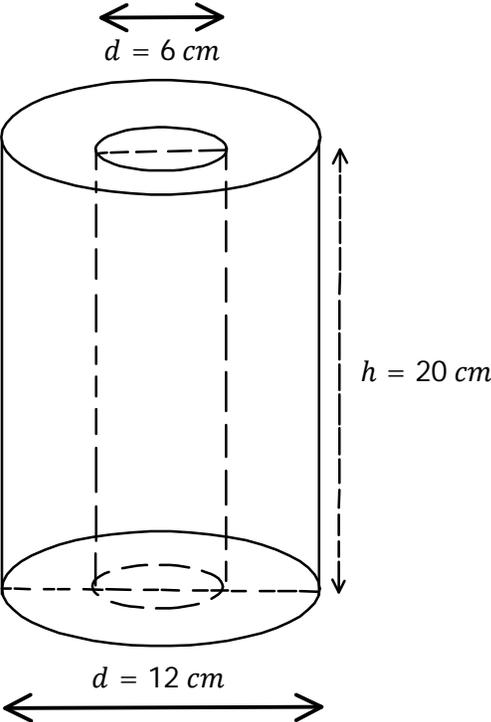
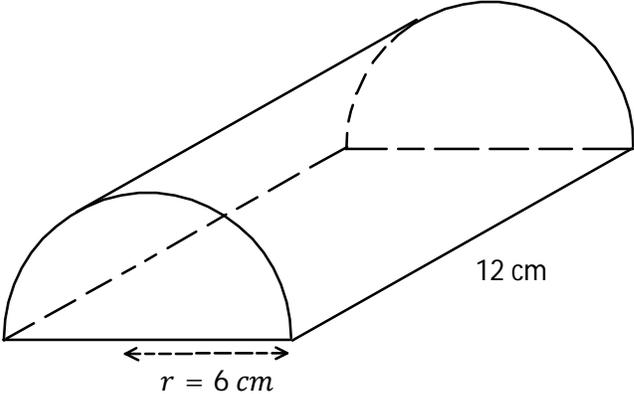


M8 - 7.4 - Rect/Tri Volume Composite Shapes HW

Calculate the volume of the following shapes.



M8 - 7.4 - Cyl Volume Composite Shapes HW



M8 - 6.0 - Multiples/Factors HW

List the first 10 multiples of the following numbers.

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

25

30

50

List the factors of the following numbers. (In ascending order)

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

25

30

50

M8 - 6.0 - Finding LCM HW

Find the LCM.

8,5

12,10

8,6

45,5

8,6,12

8,6,40

3,7
2,5
4,6

3,2
2,4
8,6

10,15
8,12
10,6

12,5
10,12

3,7,12
8,10,12
12,30,84

M8 - 6.0 - Finding GCF HW

Find the GCF.

6, 9

2, 4

GCF =

20, 15

26, 12

18, 21

8, 10

54, 66

30, 36

9, 15
15, 20
12, 18
18, 15

0.15, 0.20
0.8, 1.2
0.2, 0.4

12, 24
12, 18
12, 15
12, 28

20, 30
30, 40
169, 65
48, 36

30, 45, 60
12, 18, 28
12, 16, 28
35, 7, 49

M8 - 6.1 - Simplification HW

Simplify the following fractions

$\frac{2}{4} =$

$\frac{3}{6} =$

$\frac{4}{8} =$

$\frac{3}{9} =$

$\frac{2}{6} =$

$\frac{2}{8} =$

$\frac{3}{12} =$

$\frac{2}{16} =$

$\frac{2}{10} =$

$\frac{8}{16} =$

$\frac{7}{14} =$

$\frac{2}{14} =$

$\frac{6}{8} =$

$\frac{4}{16} =$

$\frac{9}{12} =$

$\frac{9}{21} =$

$\frac{16}{16} =$

$\frac{4}{12} =$

$\frac{4}{2} =$

$\frac{9}{3} =$

$\frac{15}{5} =$

$\frac{18}{9} =$

$\frac{16}{8} =$

$\frac{16}{4} =$

$\frac{12}{24} =$

$\frac{15}{45} =$

$\frac{16}{64} =$

$\frac{13}{65} =$

$\frac{10}{40} =$

$\frac{15}{90} =$

$\frac{4}{12} =$

$\frac{5}{25} =$

$\frac{6}{30} =$

$\frac{7}{42} =$

$\frac{5}{40} =$

$\frac{12}{48} =$

Simplify the following fractions

$\frac{6}{4} =$

$\frac{15}{10} =$

$\frac{18}{4} =$

$\frac{14}{8} =$

$\frac{12}{8} =$

$\frac{15}{6} =$

$\frac{24}{10} =$

$\frac{54}{10} =$

$\frac{20}{12} =$

$\frac{42}{14} =$

$\frac{22}{8} =$

$\frac{52}{10} =$

$\frac{24}{18} =$

$\frac{44}{33} =$

$\frac{56}{12} =$

$\frac{32}{6} =$

$\frac{56}{18} =$

$\frac{28}{21} =$

M8 - 6.1 - Expansion HW

Multiply the top and bottom by 2

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{5} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{4} =$$

Multiply the top and bottom by 3

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{5} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{4} =$$

Multiply the top and bottom by 4

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{5} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{4} =$$

Multiply the top and bottom by 5

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{5} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{4} =$$

Change to a denominator of 12

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{4} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{4} =$$

Multiply the top and bottom by 30

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{3}{5} =$$

$$\frac{2}{3} =$$

$$\frac{1}{6} =$$

$$\frac{1}{10} =$$

Expand the following fractions by any factor.

$$\frac{1}{2} =$$

$$\frac{1}{3} =$$

$$\frac{1}{4} =$$

$$\frac{1}{5} =$$

$$\frac{1}{6} =$$

$$\frac{2}{3} =$$

$$\frac{1}{9} =$$

$$\frac{7}{8} =$$

$$\frac{3}{10} =$$

$$\frac{1}{7} =$$

M8 - 6.2 - Multiplying HW

Multiply the following fractions.

$$\frac{2}{3} \times \frac{4}{5} =$$

$$\frac{1}{7} \times \frac{3}{10} =$$

$$\frac{1}{5} \times \frac{6}{7} =$$

$$\frac{2}{7} \times \frac{4}{5} =$$

$$\frac{1}{3} \times \frac{5}{8} =$$

$$\frac{2}{9} \times \frac{4}{5} =$$

$$\frac{3}{7} \times \frac{1}{2} =$$

$$\frac{7}{2} \times \frac{1}{5} =$$

$$\frac{1}{5} \times 4 =$$

$$\frac{1}{3} \times \frac{2}{3} =$$

$$\frac{1}{3} \times \frac{4}{7} =$$

$$\frac{8}{9} \times \frac{2}{1} =$$

$$\frac{2}{3} \times \frac{4}{5} =$$

$$\frac{2}{7} \times \frac{2}{3} =$$

$$\frac{3}{5} \times \frac{2}{7} =$$

$$\frac{1}{3} \times \frac{2}{3} =$$

$$\frac{3}{8} \times \frac{3}{2} =$$

$$3 \times \frac{2}{7} =$$

$$\frac{1}{2} \times \frac{1}{3} =$$

$$\frac{1}{3} \times \frac{1}{2} =$$

$$\frac{1}{4} \times \frac{1}{3} =$$

$$\frac{2}{3} \times \frac{1}{3} =$$

$$\frac{3}{5} \times \frac{7}{8} =$$

$$\frac{3}{5} \times \frac{1}{2} =$$

$$\frac{2}{7} \times \frac{3}{1} =$$

$$2 \times \frac{1}{3} =$$

$$\frac{1}{4} \times 3 =$$

Multiply then simplify if necessary, or simplify first then multiply.

$$\frac{2}{5} \times \frac{1}{2} =$$

$$\frac{3}{7} \times \frac{7}{2} =$$

$$\frac{3}{5} \times 5 =$$

$$\frac{1}{3} \times 3^3 =$$

$$\frac{6}{7} \times \frac{2}{3} =$$

$$\frac{1}{8} \times \frac{4}{7} =$$

$$\frac{1}{3} \times 3^2 =$$

$$4 \times \frac{3}{16} =$$

$$\frac{1}{3} \times \frac{9}{11} =$$

$$\frac{2}{5} \times \frac{25}{27} =$$

$$\frac{7}{2} \times \frac{4}{21} =$$

$$\frac{2}{8} \times \frac{3}{6} =$$

M8 - 6.2 - Dividing Fractions HW

Divide the following fractions.

$$\frac{1}{2} \div \frac{4}{7} =$$

$$\frac{2}{7} \div \frac{3}{5} =$$

$$\frac{1}{2} \div \frac{2}{3} =$$

$$\frac{3}{10} \div \frac{1}{3} =$$

$$\frac{1}{3} \div \frac{1}{2} =$$

$$\frac{3}{7} \div \frac{1}{2} =$$

$$\frac{1}{5} \div \frac{2}{3} =$$

$$\frac{5}{7} \div \frac{4}{5} =$$

$$\frac{1}{2} \div \frac{4}{7} =$$

$$\frac{2}{11} \div \frac{1}{3} =$$

$$\frac{1}{5} \div \frac{1}{2} =$$

$$\frac{2}{7} \div \frac{3}{5} =$$

$$\frac{1}{4} \div 2 =$$

$$\frac{3}{5} \div 4 =$$

$$0 \div \frac{1}{2} =$$

$$\frac{1}{2} \div 0 =$$

$$\frac{1}{7} \div \frac{1}{3} \div \frac{5}{2} =$$

$$\frac{5}{\left(\frac{1}{3}\right)} =$$

$$\frac{\left(\frac{2}{3}\right)}{5} =$$

$$\frac{\left(\frac{2}{5}\right)}{\left(\frac{3}{4}\right)} =$$

Divide the following fractions then simplify.

$$\frac{1}{4} \div \frac{1}{2} =$$

$$\frac{1}{3} \div \frac{1}{6} =$$

$$\frac{9}{14} \div 3 =$$

$$\frac{6}{7} \div 3 =$$

$$\frac{4}{5} \div 4 =$$

$$\frac{10}{11} \div 5 =$$

$$2 \div \frac{5}{4} =$$

$$7 \div \frac{5}{6} =$$

$$\frac{2}{5} \div \frac{3}{10}$$

M8 - 6.3 - Improper to Mixed Fractions HW

Convert from an improper fraction to a mixed number

$$\frac{6}{5} =$$

$$\frac{10}{3} =$$

$$\frac{5}{2} =$$

$$\frac{7}{2} =$$

$$\frac{3}{2} =$$

$$\frac{19}{3} =$$

$$\frac{15}{2} =$$

$$\frac{15}{4} =$$

$$\frac{23}{6} =$$

$$\frac{23}{5} =$$

$$\frac{21}{4} =$$

$$\frac{19}{6} =$$

$$\frac{27}{2} =$$

$$\frac{17}{3} =$$

$$\frac{27}{5} =$$

$$\frac{35}{4} =$$

$$\frac{37}{7} =$$

$$\frac{33}{5} =$$

$$\frac{69}{8} =$$

$$\frac{46}{7} =$$

$$\frac{58}{7} =$$

$$\frac{41}{6} =$$

$$\frac{6}{3} =$$

$$\frac{43}{14} =$$

$$\frac{31}{13} =$$

$$\frac{137}{10} =$$

$$\frac{35}{16} =$$

$$\frac{91}{12} =$$

$$\frac{41}{11} =$$

$$\frac{65}{12} =$$

$$\frac{49}{17} =$$

$$\frac{71}{15} =$$

$$\frac{100}{9} =$$

$$\frac{8}{6} =$$

$$\frac{10}{6} =$$

$$\frac{6}{4} =$$

$$\frac{10}{4} =$$

M8 - 6.3 - Mixed to Improper Fractions HW

Convert from a mixed number to an improper fraction

$$2\frac{1}{2} =$$

$$3\frac{1}{3} =$$

$$2\frac{1}{3} =$$

$$4\frac{4}{5} =$$

$$3\frac{3}{5} =$$

$$5\frac{1}{2} =$$

$$3\frac{2}{5} =$$

$$5\frac{1}{4} =$$

$$7\frac{2}{3} =$$

$$6\frac{5}{6} =$$

$$11\frac{1}{2} =$$

$$7\frac{3}{8} =$$

$$2\frac{3}{4} =$$

$$12\frac{2}{3} =$$

$$6\frac{5}{9} =$$

$$4\frac{2}{5} =$$

$$7\frac{3}{4} =$$

$$1\frac{19}{20} =$$

$$6\frac{1}{7} =$$

$$5\frac{3}{5} =$$

$$9\frac{3}{7} =$$

$$5\frac{3}{11} =$$

$$7\frac{5}{7} =$$

$$13\frac{4}{9} =$$

$$12\frac{7}{13} =$$

$$8\frac{2}{17} =$$

$$4\frac{7}{25} =$$

M8 - 6.4 - Adding Fractions HW

Add the following fractions

$$\frac{1}{3} + \frac{1}{3} =$$

$$\frac{1}{4} + \frac{1}{4} =$$

$$\frac{2}{7} + \frac{3}{7} =$$

$$\frac{1}{5} + \frac{2}{5} =$$

$$\frac{1}{4} + \frac{2}{4} =$$

$$\frac{1}{5} + \frac{3}{5} =$$

$$\frac{1}{7} + \frac{2}{7} =$$

$$\frac{1}{9} + \frac{4}{9} =$$

Add the following fractions by finding the LCD

$$\frac{1}{2} + \frac{1}{3} =$$

$$\frac{1}{2} + \frac{2}{5} =$$

$$\frac{3}{5} + \frac{1}{4} =$$

$$\frac{1}{5} + \frac{5}{7} =$$

$$\frac{1}{4} + \frac{2}{7} =$$

$$\frac{1}{3} + \frac{1}{5} =$$

Add the following fractions by finding the LCD

$$\frac{1}{2} + \frac{1}{4} =$$

$$\frac{1}{3} + \frac{2}{9} =$$

$$\frac{15}{24} + \frac{1}{3} =$$

$$\frac{2}{5} + \frac{2}{15} =$$

$$\frac{1}{7} + \frac{3}{14} =$$

$$\frac{4}{7} + \frac{4}{35} =$$

Add the following fractions by finding the LCD

$$\frac{1}{6} + \frac{4}{9} =$$

$$\frac{5}{12} + \frac{3}{8} =$$

Add the following fractions by finding the LCD. Don't forget to simplify

$$\frac{1}{2} + \frac{1}{2} =$$

$$\frac{1}{3} + \frac{4}{6} =$$

$$\frac{1}{2} + \frac{1}{6} =$$

$$\frac{1}{3} + \frac{1}{6} =$$

$$\frac{2}{15} + \frac{5}{12} =$$

Add the following fractions by finding the LCD. Don't forget to simplify or change to a mixed number.

$$\frac{3}{8} + \frac{2}{3} =$$

$$5 + \frac{1}{4} =$$

$$\frac{1}{3} + 1 =$$

$$\frac{1}{3} + \frac{4}{5} =$$

$$\frac{3}{5} + \frac{4}{6} =$$

$$\frac{4}{6} + \frac{3}{4} =$$

$$\frac{12}{24} + \frac{11}{12} =$$

$$\frac{8}{4} + \frac{4}{4} =$$

$$\frac{2}{1} + \frac{3}{4} =$$

$$\frac{1}{4} + \frac{2}{5} =$$

$$\frac{4}{12} + \frac{12}{2} =$$

M8 - 6.4 - Subtracting Fractions HW

Subtract the following fractions

$$\frac{2}{3} - \frac{1}{3} =$$

$$\frac{3}{5} - \frac{1}{5} =$$

$$\frac{5}{7} - \frac{2}{7} =$$

$$\frac{5}{9} - \frac{3}{9} =$$

Subtract the following fractions by finding the LCD

$$\frac{1}{2} - \frac{1}{3} =$$

$$\frac{1}{2} - \frac{2}{5} =$$

$$\frac{4}{5} - \frac{1}{3} =$$

$$\frac{5}{7} - \frac{1}{5} =$$

$$\frac{2}{3} - \frac{3}{8} =$$

Subtract the following fractions by finding the LCD

$$\frac{1}{3} - \frac{2}{9} =$$

$$\frac{1}{3} - \frac{1}{6} =$$

$$\frac{15}{24} - \frac{1}{3} =$$

Subtract the following fractions by finding the LCD, then simplify

$$\frac{1}{2} - \frac{1}{6} =$$

$$\frac{11}{12} - \frac{12}{24} =$$

$$\frac{5}{18} - \frac{2}{9} =$$

Subtract the following fractions then simplify, or simplify first.

$$\frac{3}{4} - \frac{1}{4} =$$

$$\frac{4}{12} - \frac{1}{6} =$$

$$\frac{4}{6} - \frac{1}{3} =$$

$$\frac{3}{7} - \frac{6}{21} =$$

$$\frac{2}{3} - \frac{3}{9} =$$

Subtract the following fractions by finding the LCD, change to a mixed number.

$$5 - \frac{1}{4} =$$

$$3 - \frac{1}{3} =$$

$$6 - \frac{1}{2} =$$

Subtract the following fractions then simplify

$$\frac{3}{2} - \frac{1}{2} =$$

$$\frac{8}{4} - \frac{4}{4} =$$

$$\frac{1}{2} - \frac{1}{2} =$$

$$\frac{1}{2} - \frac{2}{4} =$$

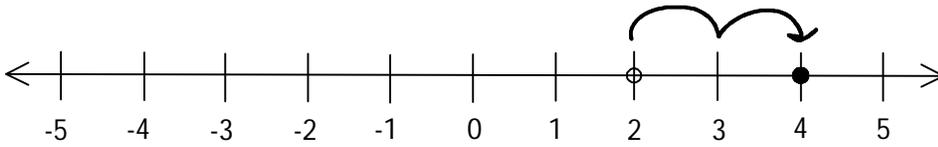
$$\frac{2}{4} - \frac{4}{8} =$$

$$\frac{17}{34} - \frac{1}{2} =$$

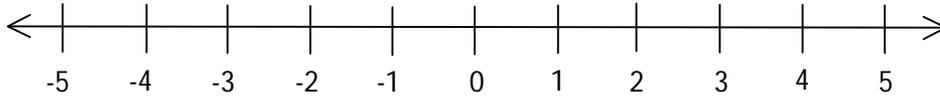
M8 - 8.1 - Add/Subtract +/- Integers # Line HW

Add and subtract the following integers using the number line.

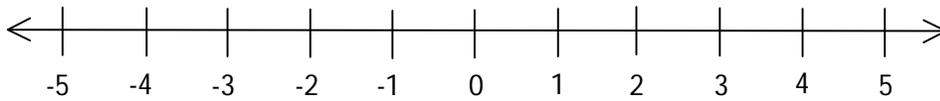
$$2 + 2 = 4$$



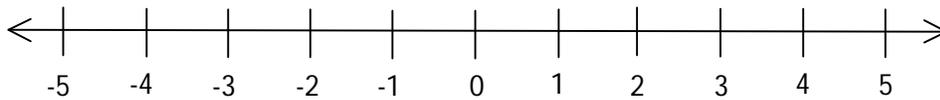
$$5 - 4 =$$



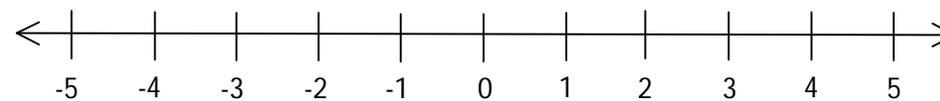
$$2 - 5 =$$



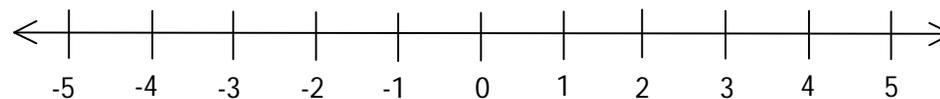
$$4 - 8 =$$



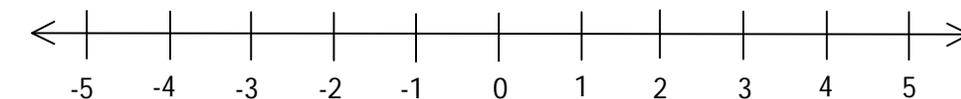
$$-2 - 1 =$$



$$(-1) + (-3) =$$

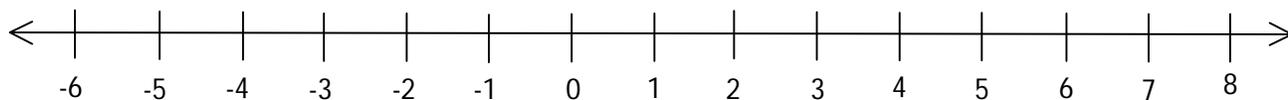


$$2 - (-3) =$$



M8 - 8.1 - Add/Subtract +/- Integers HW

Add and subtract the following integers using the number line.



$3 + 5 =$

$5 - 2 =$

$2 + 2 =$

$3 - 1 =$

$4 - 8 =$

$5 - 7 =$

$9 - 9 =$

$1 - 3 =$

$5 + (-2) =$

$4 + (-4) =$

$3 + (-6) =$

$(-2) + 4 =$

$5 + (2) =$

$4 + (+4) =$

$3 - (6) =$

$(-2) + (-4) =$

$3 - (-2) =$

$(-1) - (-4) =$

$2 - (-6) =$

$(-2) - 4 =$

$(-4) - (+2) =$

$6 + (-4) =$

$3 + (-6) =$

$(-2) + 4 =$

$2 + 6 =$

$4 + 2 + 1 =$

$8 - 2 =$

$7 - 1 - 1 =$

$5 - 2 + 1 =$

$5 - 4 + 4 =$

$6 - 6 - 5 =$

$1 + 2 + 3 =$

$8 - 10 =$

$5 + (-10) =$

$5 + (-4) - (-1) =$

$(-3) - (2) + 3 =$

$5 - (-2) + 4 =$

$6 + 2 - (-1) =$

$(5) - (-1) + 3 =$

$6 - 4 + 2 =$

$7 + 8 =$

$15 - 7 =$

$16 - 11 =$

$5 + 11 =$

$5 - (-11) =$

$12 - 8 + (-4) =$

$14 - 4 - 10 =$

$(-3) - (-16) - (4) =$

M8 - 8.2 - Multiply/Divide +/- Integers HW

Multiply or divide the following.

$3 \times 2 =$

$4 \times 2 =$

$2 \times 2 =$

$3 \div 1 =$

$4 \times 4 =$

$5 \times 3 =$

$9 \div 9 =$

$1 \times 3 =$

$5 \times (-2) =$

$4 \times (-4) =$

$3 \times (-6) =$

$(-2) \times 4 =$

$5 \times (2) =$

$4 \times (+4) =$

$3 \times (6) =$

$(-2) \times (-4) =$

$3 \times (-2) =$

$(-1) \times (-4) =$

$6 \div (-3) =$

$(-8) \times 4 =$

$(-4) \div (+2) =$

$6 \times (-4) =$

$3 \times (-6) =$

$(-2) \times 4 =$

$2 \times 0 =$

$0 \times 2 \times 3 =$

$12 \div 0 =$

$0 \div 4 =$

$4 \div (-2) =$

$(-6) \div (2) =$

$(-21) \div (-3) =$

$(-24) \div 8 =$

$5 \div (-5) =$

$(-16) \div (-8) =$

$(-9) \div (+3) =$

$(+45) \div (-9) =$

$(-90) \div 15 =$

$(-32) \div (-8) =$

$(-6) \div (-6) =$

$(77) \div (-7) =$

$5 \times 2 \div 1 =$

$5 \times 4 \div 4 =$

$6 \div 6 \times 5 =$

$1 \times 2 \times 3 =$

$13 \times 10 =$

$13 \times (-10) =$

$5 \times (-4) \div (-1) =$

$(-3) \times (2) \times 3 =$

$5 \times (-2) \times 4 =$

$6 \div 2 \times (-1) =$

$(5) \times (-1) \times 3 =$

$6 \times 4 \div 2 =$

$5 \times (-5) =$

$2 \times 12 \div (6) =$

$14 \div 7 \times 10 =$

$(-3) \times (-10) \div (5) =$

$\frac{60}{-12} =$

$\frac{-36}{6} =$

$\frac{35}{5} =$

$\frac{9}{-1} =$

$\frac{75}{-5} =$

$-\frac{56}{7} =$

$-\frac{144}{-12} =$

$\frac{99}{-3} =$

$-\frac{24}{8} =$

$\frac{-24}{6} =$

$-\frac{(-4)}{(-2)} =$

$\frac{-81}{-(-9)} =$

$\frac{-4}{12} =$

$\frac{-5}{-45} =$

$\frac{50}{-10} =$

$-\left(\frac{-6}{-8}\right) =$

$-\left(\frac{27}{3}\right) =$

$\frac{(-6)}{18} =$

M8 - 8.3 - Order of Operations Integers HW

Evaluate the following expressions:

$$3 + 2 - 4 =$$

$$10 - 5 + 2 =$$

$$6 - 3 + 4 =$$

$$4 + 3 - 6 =$$

$$8 - 5 - 4 =$$

$$2 + 5 - 10 =$$

Evaluate the following expressions:

$$8 \div 2 - 6 =$$

$$3 + 3 \times 2 =$$

$$6 \div 3 + 5 =$$

$$9 \div 3 + 5 =$$

$$5 - 3 \times 2 =$$

$$7 \times 2 + 6 =$$

$$(3 + 2) \times 2 =$$

$$(7 - 3) \div 2 =$$

$$(8 - 2) \times (9 - 5) =$$

Evaluate:

$$10 \div (7 - 2) =$$

$$18 \div (-3 + 6) =$$

$$(3 + 5) \times 6 =$$

$$(-7 \times 2) + 10 \times 2 =$$

$$(4 + 1) \div 5 \times 2 =$$

$$(7 - 4)^2 \times 2 =$$

$$5^2 - 4^3 =$$

$$3^3 - 2^4 =$$

$$(5 + 3)^2 =$$

M8 - 8.3 - Order of Operations Integers HW

Evaluate the following expressions:

$$2^2 - 3 =$$

$$2^3 \times 5^2 =$$

$$7^2 - 18 \div 2 =$$

$$2 \times 4^2 + 3^2 =$$

$$8^0 \times 5 - 3^2 =$$

$$(9 - 2) + 6 =$$

$$(4 - 5) \times 10^2 =$$

$$64 \div (12 - 4) =$$

$$(4 + 2)^2 \div 4 =$$

$$2(5 - 3)^2 =$$

$$\frac{3 \times 8 - 5 + 3}{11} =$$

$$\frac{5 \times 2 - 5 + 4}{3} =$$

Evaluate the following expressions:

$$-3^2(4 + (-6)) =$$

$$(-2)^2(6 - (-4)) =$$

$$-4^2 + (4 + (-1)^2)^2 =$$

$$\frac{-14 + (-2)^2}{6 - (-4)} =$$

$$\frac{2^3((-3)^2 - (-1)^3)}{4 - (-6)} =$$

$$\frac{2^2 + (-2)^2}{14 - 3 \times 4} =$$

M8 - 8.4 - Insert Brackets to Make True HW

Insert brackets into the equation to make the statement true.

$$8 - 3 + 2 = 3$$

$$3 \times 4 - 2 = 6$$

$$4 \times 3 + 2 \times 2 = 40$$

$$18 \div 3 + 1 = 6$$

$$1 + 9 \div 5 = 2$$

$$1 - 5 \div 2 - 1 \times 5 = -7$$

$$\frac{2 + 4}{2 + 1} - 1 = 1$$

$$1 + 2 \div 3 \times 5 + 1 = 6$$

$$1 - 20 + 5 \div 5 \times 2 = -9$$

$$3 - 5 \times 3 \div 3 \times 2 = -2$$

$$12 \div 3 \times 4 = 4 - 1 \div 3$$

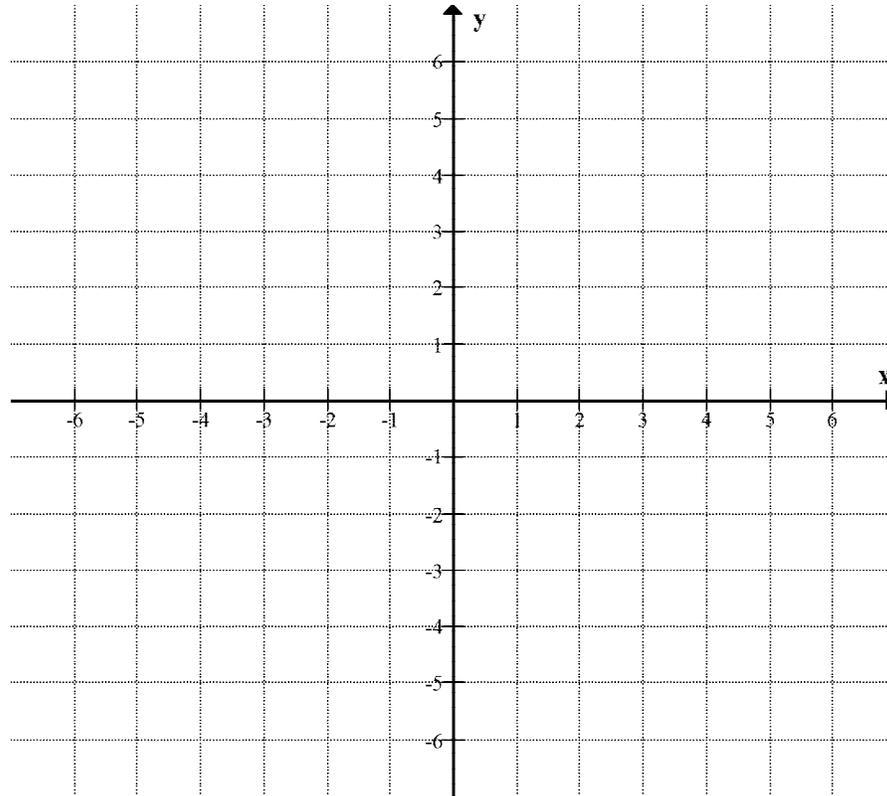
$$3 - 1 \times 5 - 2 = 3 \times 8 - 3 \times 2$$

$$2 \times 5 - 6 + 2 - 3 \times 4 = 8$$

M8 - 9.1 - Plotting Points Graph HW

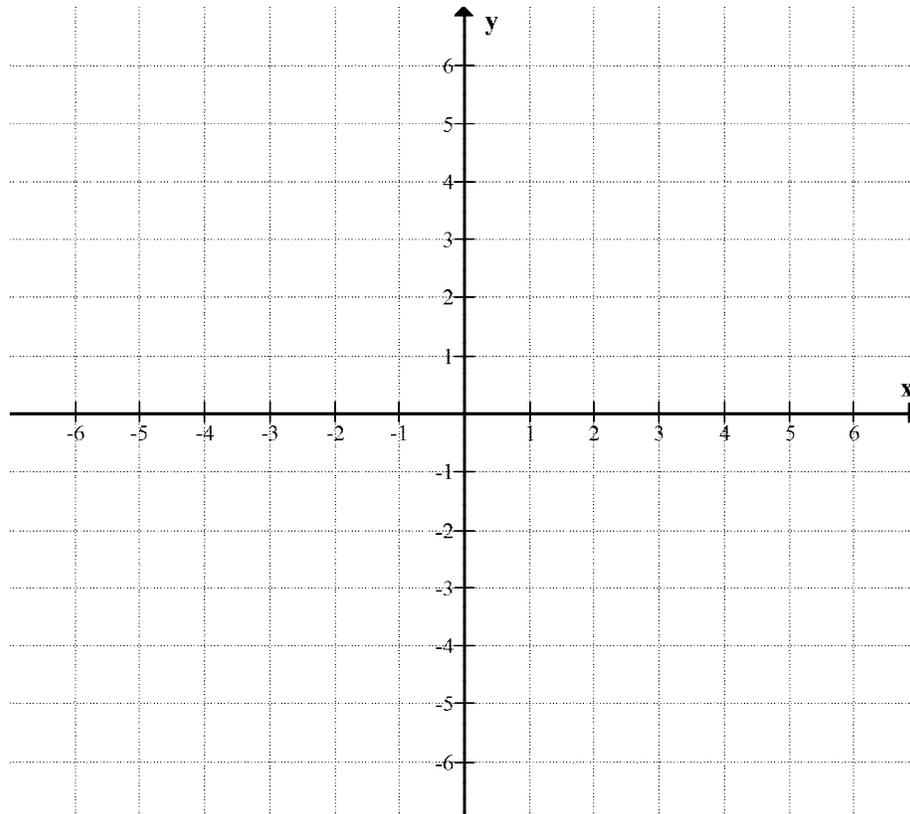
Plot the following points on the graph

- (2,3)
- (-4,3)
- (2,1)
- (6,-2)
- (-2,-3)
- (-5,4)
- (-3,3)
- (-6,-3)
- (4,-4)
- (1,1)
- (0,3)
- (1,0)
- (0,0)
- (-5,0)
- (0,-8)
- (5,-4)
- (2,1)
- (0,7)
- (3,0)
- (6,0)
- (-4,0)



Plot the following points on the graph

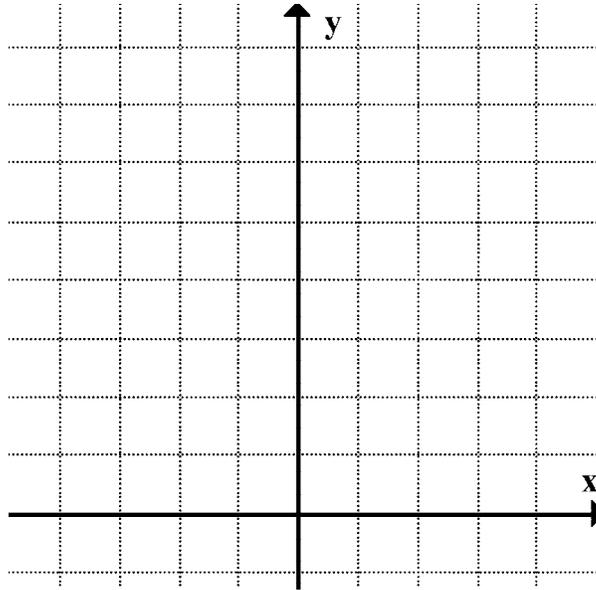
- (2,1)
- (-5,3)
- (2,4)
- (6,-3)
- (-2,-1)
- (-2,4)
- (-5,3)
- (-7,-3)
- (4,-5)
- (1,2)
- (0,4)
- (2,0)
- (0,0)
- (-6,0)
- (8,-6)
- (4,-4)
- (1,7)
- (0,9)
- (4,0)
- (0,-7)
- (-3,0)



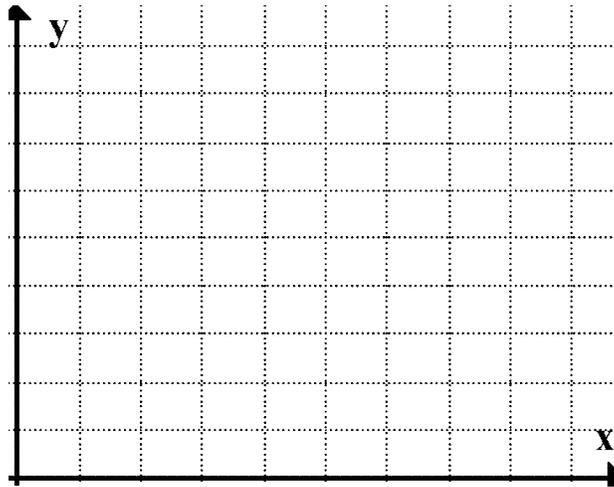
M8 - 9.1 - Plotting Points Graph HW

Graph the following line using a table of values.

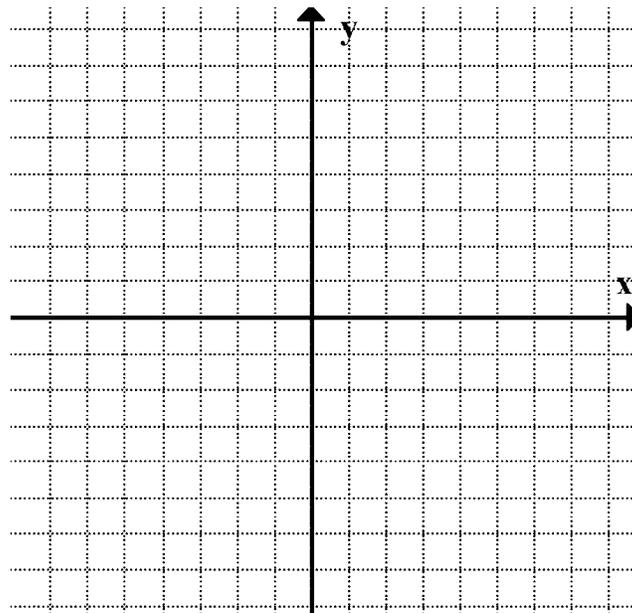
x	y
-3	9
-2	4
-1	1
0	0
1	1
2	4
3	9



x	y
0	0
1	1
4	2
9	3



x	y
-2	-8
-1	-1
0	0
1	1
2	8

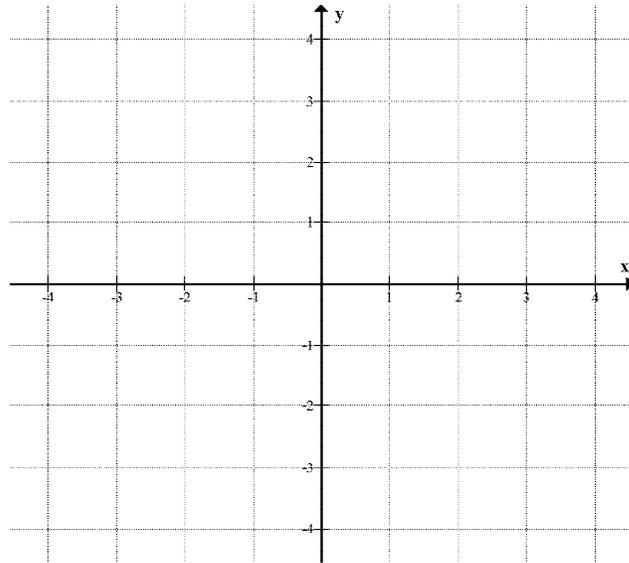


M8 - 9.2 - Graphing Equations TOV $y=x, y=x+2$ HW

Use a table of values to graph the following equation.

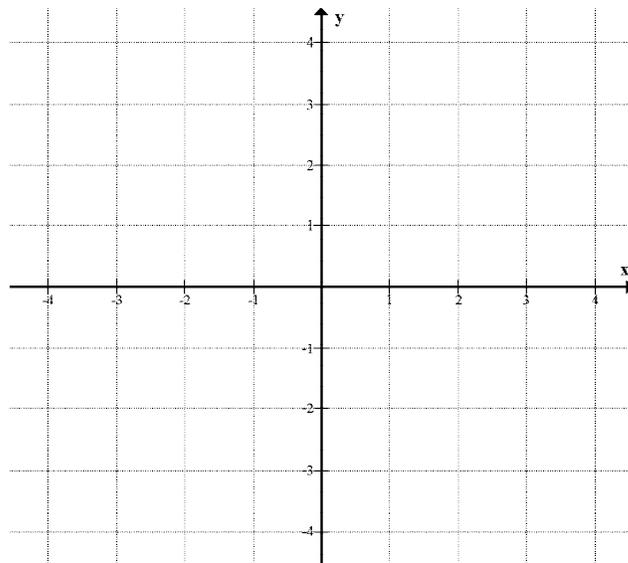
$$y = x$$

x	y
-2	
-1	
0	
1	
2	



$$y = x + 2$$

x	y
-2	
-1	
0	
1	
2	

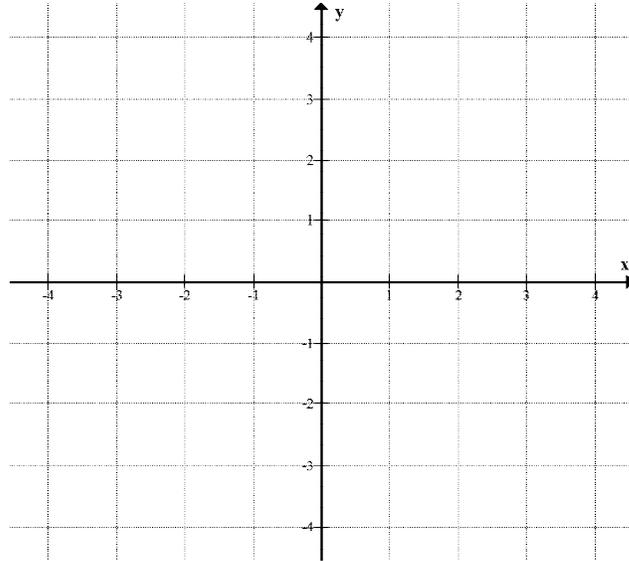


M8 - 9.2 - Graphing Equations TOV $y=x-1, y=x+3$ HW

Use a table of values to graph the following equation.

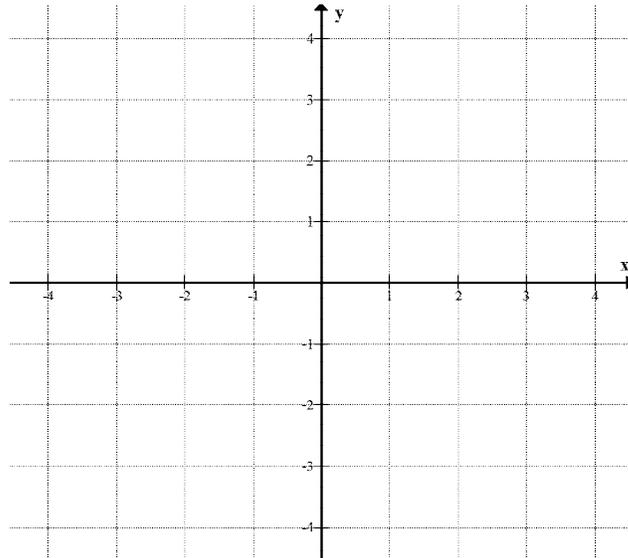
$$y = x - 1$$

x	y
-2	
-1	
0	
1	
2	



$$y = x + 3$$

x	y
-2	
-1	
0	
1	
2	

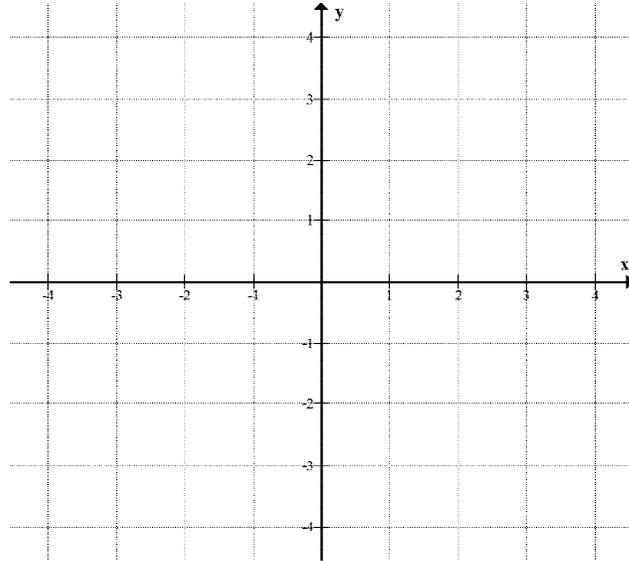


M8 - 9.2 - Graphing Equations TOV $y=2x-1, y=2x+3$ HW

Use a table of values to graph the following equation.

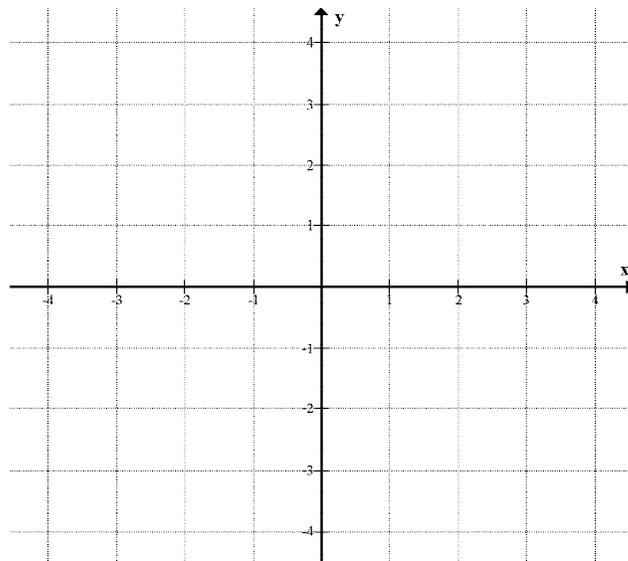
$$y = 2x - 1$$

x	y
-2	
-1	
0	
1	
2	



$$y = 2x + 3$$

x	y
-2	
-1	
0	
1	
2	

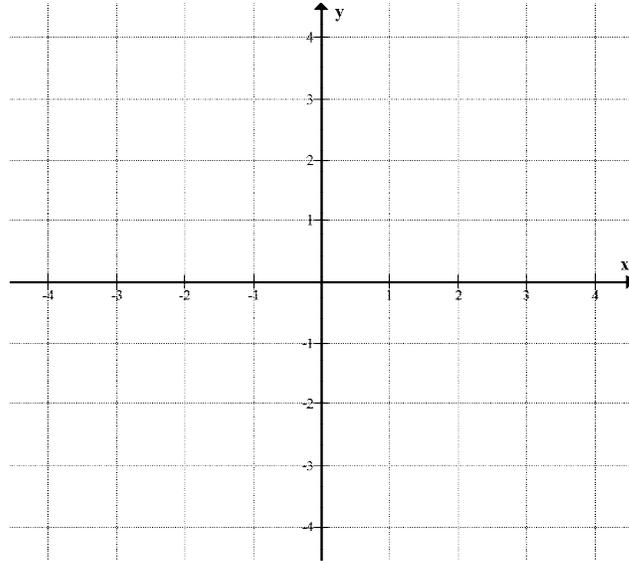


M8 - 9.2 - Graphing Equations TOV $y=3x, y=3x-1$ HW

Use a table of values to graph the following equation.

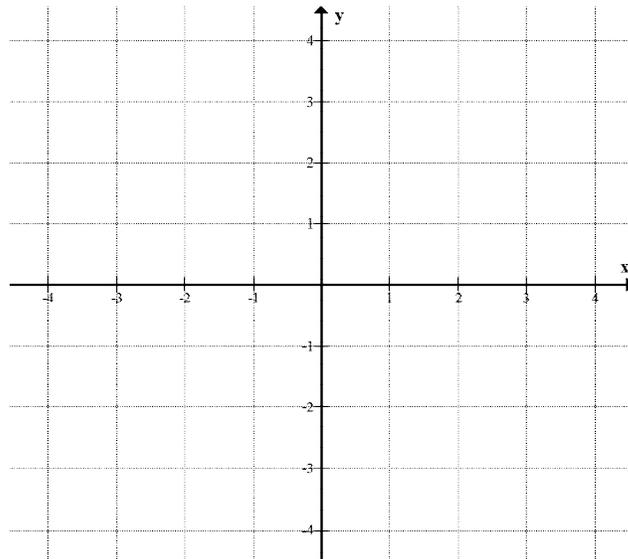
$$y = 3x$$

x	y
-2	
-1	
0	
1	
2	



$$y = 3x - 1$$

x	y
-2	
-1	
0	
1	
2	

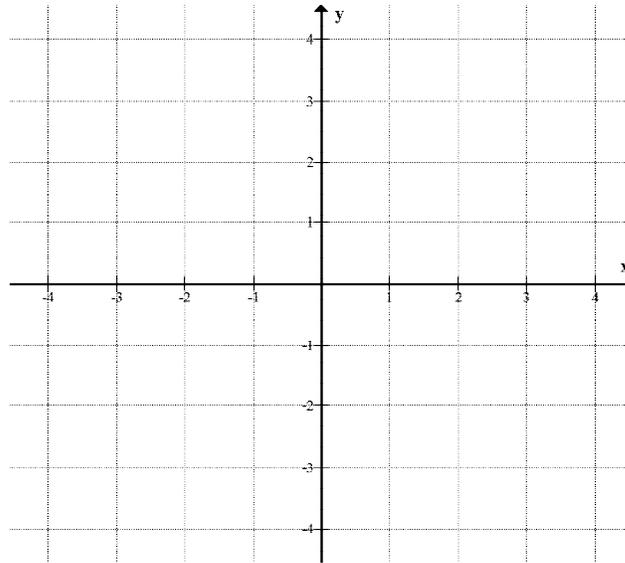


M8 - 9.2 - Graphing Equations TOV $y=3x+4, y=3x-2$ HW

Use a table of values to graph the following equation.

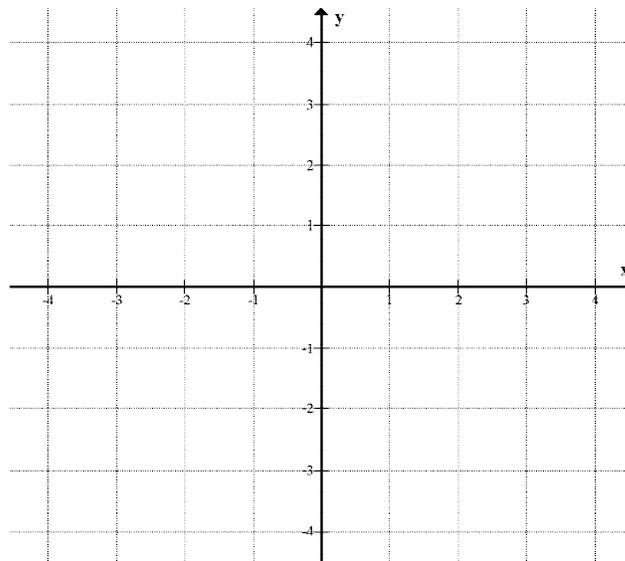
$$y = 3x + 4$$

x	y
-2	
-1	
0	
1	
2	



$$y = 3x - 2$$

x	y
-2	
-1	
0	
1	
2	

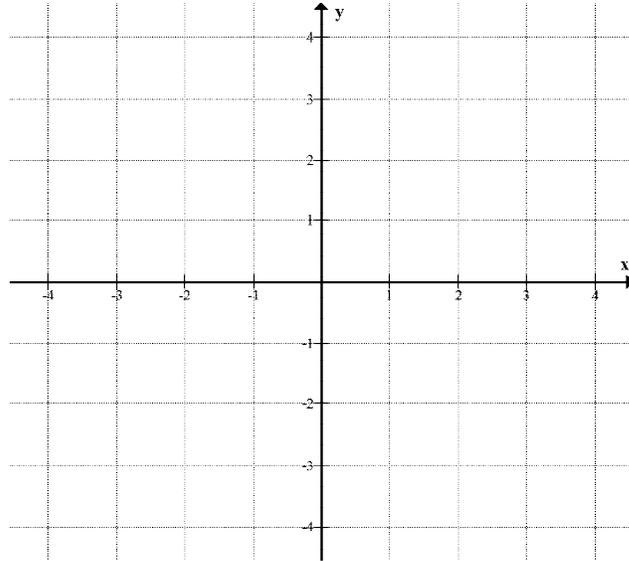


M8 - 9.2 - Graphing Equations TOV $y=1/2x, y=1/2x+1$ HW

Use a table of values to graph the following equation.

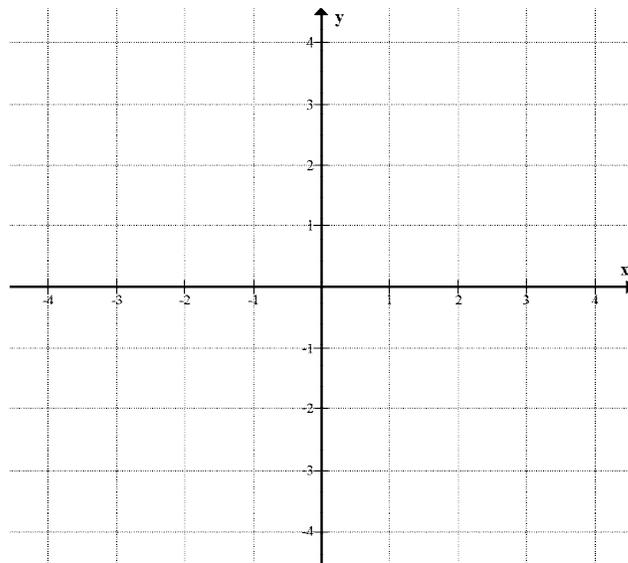
$$y = \frac{1}{2}x$$

x	y
-2	
-1	
0	
1	
2	



$$y = \frac{1}{2}x + 1$$

x	y
-2	
-1	
0	
1	
2	

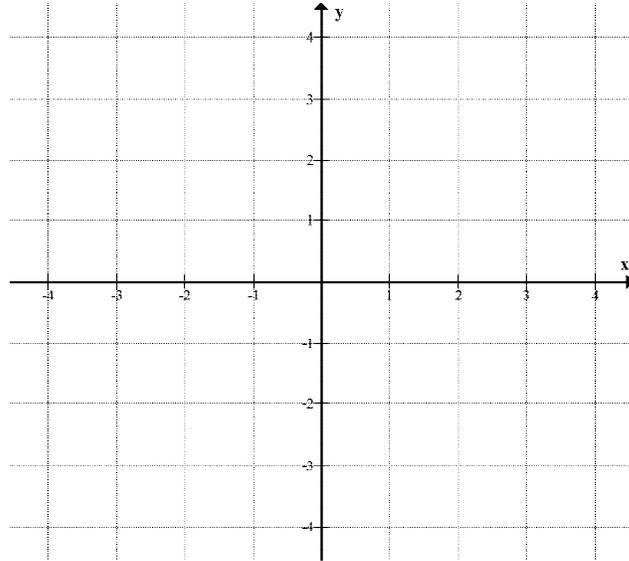


M8 - 9.2 - Graphing Equations TOV $y=-x$, $y=-x+1$ HW

Use a table of values to graph the following equation.

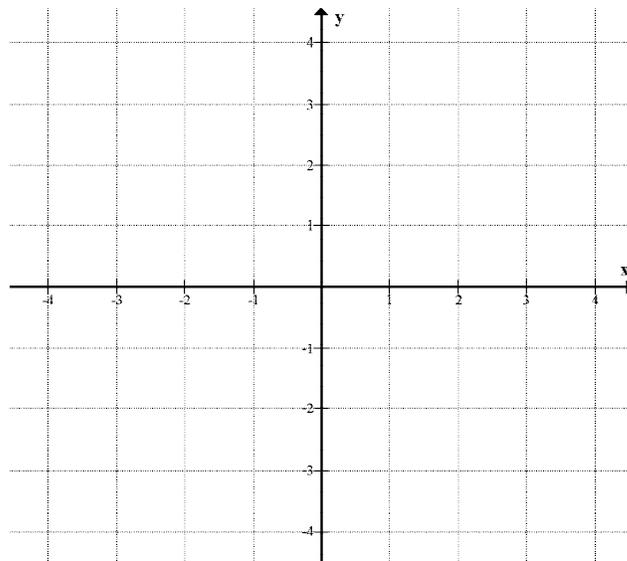
$$y = -x$$

x	y
-2	
-1	
0	
1	
2	



$$y = -x + 1$$

x	y
-2	
-1	
0	
1	
2	

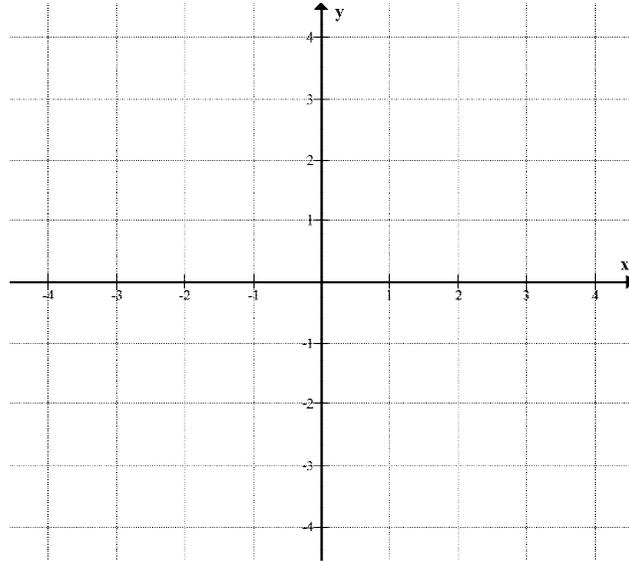


M8 - 9.2 - Graphing Equations TOV $y=-2x-2$, $y=-1/2x+4$ HW

Use a table of values to graph the following equation.

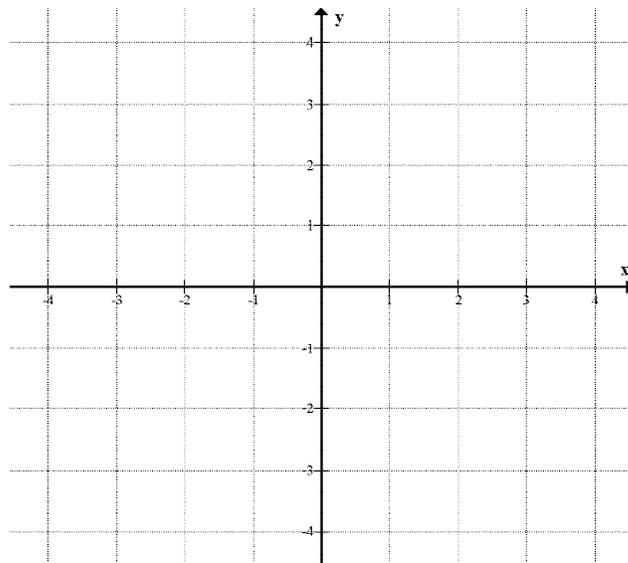
$$y = -2x - 2$$

x	y
-2	
-1	
0	
1	
2	



$$y = -\frac{1}{2}x + 4$$

x	y
-2	
-1	
0	
1	
2	

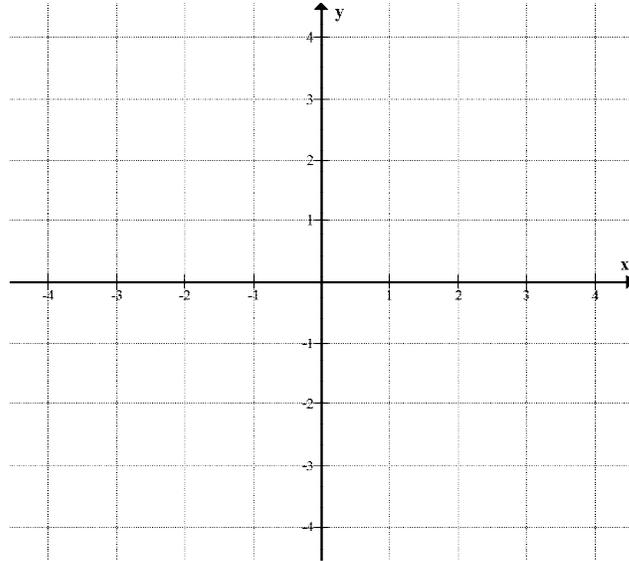


M8 - 9.2 - Graphing Equations TOV $y = -\frac{2}{3}x - 2$, $y = -\frac{1}{2}x + 4$ HW

Use a table of values to graph the following equation.

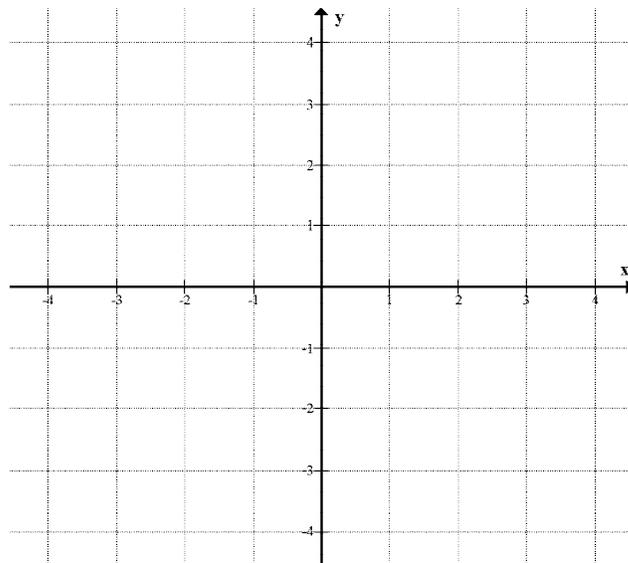
$$y = -\frac{2}{3}x - 2$$

x	y
-3	
-1	
0	
1	
3	

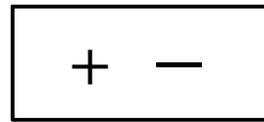


$$y = -\frac{1}{2}x + 4$$

x	y
-2	
-1	
0	
1	
2	



M8 - 10.0 - blank + $b = c$ HW



Fill in the blank and find another relationship.

$$\underline{2} + 3 = 5$$

$$5 - 3 = 2$$

$$\underline{\quad} + 3 = 7$$

$$= 4$$

$$\underline{\quad} + 4 = 9$$

$$= 5$$

$$3 + \underline{\quad} = 6$$

$$= 3$$

$$4 + \underline{\quad} = 8$$

$$= 4$$

$$2 + \underline{\quad} = 6$$

$$= 4$$

$$7 = \underline{\quad} + 3$$

$$4 =$$

$$4 = \underline{\quad} + 1$$

$$3 =$$

$$6 = \underline{\quad} + 5$$

$$1 =$$

Fill in the blank and find another relationship.

$$\underline{5} - 2 = 3$$

$$3 + 2 = 5$$

$$\underline{\quad} - 5 = 9$$

$$= 14$$

$$\underline{\quad} - 7 = 4$$

$$= 11$$

$$-7 + \underline{\quad} = 2$$

$$= 9$$

$$-12 + \underline{\quad} = 3$$

$$= 15$$

$$-9 + \underline{\quad} = 2$$

$$= 11$$

$$8 = \underline{\quad} - 3$$

$$11 =$$

$$10 = \underline{\quad} - 7$$

$$17 =$$

$$4 = \underline{\quad} - 8$$

$$12 =$$

Fill in the blank and find another relationship.

$$\underline{-2} + 10 = 8$$

$$10 - 2 = 8$$

$$\underline{\quad} + 14 = 7$$

$$= 21$$

$$\underline{\quad} + 5 = -4$$

$$= -9$$

$$\underline{\quad} - 4 = -9$$

$$= -5$$

$$\underline{\quad} - 7 = -12$$

$$= -5$$

$$\underline{\quad} - 5 = -13$$

$$= -8$$

Fill in the blank and find another relationship.

$$\underline{-7} + 3 = -4$$

$$= -7$$

$$\underline{\quad} - 4 = -2$$

$$= 2$$

$$\underline{\quad} + 2 = 6$$

$$= 4$$

$$\underline{\quad} - 4 = 7$$

$$= 11$$

$$\underline{\quad} + 8 = 3$$

$$= -5$$

$$\underline{\quad} - 6 = -3$$

$$= 3$$

$$\underline{\quad} + 2 = -7$$

$$= -9$$

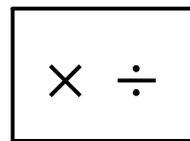
$$-4 = \underline{\quad} - 5$$

$$1 =$$

$$5 = \underline{\quad} - 3$$

$$8 =$$

M8 - 10.0 - " $a(\text{blank}) = b$ ", " $\frac{(\text{blank})}{a} = b$ " HW



Fill in the blank and write another relationship between these numbers.

$$2 \times \underline{(3)} = 6$$

$$\frac{6}{2} = 3$$

$$3 \times \underline{\quad} = 12$$

$$= 4$$

$$4 \times \underline{\quad} = 12$$

$$= 3$$

$$3 \times \underline{\quad} = 18$$

$$= 6$$

$$6 \times \underline{\quad} = -12$$

$$= -2$$

$$5 \times \underline{\quad} = 15$$

$$= 3$$

$$-7 \times \underline{\quad} = 21$$

$$= -3$$

$$8 \times \underline{\quad} = 16$$

$$= 2$$

$$-2 \times \underline{\quad} = 10$$

$$= -5$$

Fill in the blank and write another relationship between the numbers.

$$\frac{8}{2} = 4$$

$$8 = 4 \times 2$$

$$\frac{\quad}{3} = 2$$

$$6 =$$

$$\frac{\quad}{5} = 6$$

$$30 =$$

$$\frac{\quad}{6} = -4$$

$$-24 =$$

$$\frac{\quad}{3} = 9$$

$$27 =$$

$$\frac{\quad}{5} = 7$$

$$35 =$$

$$\frac{\quad}{9} = 5$$

$$45 =$$

$$\frac{\quad}{-2} = 11$$

$$-22 =$$

$$\frac{1}{7} \times \underline{\quad} = 3$$

$$21 =$$

Fill in the blank.

$$\frac{2 \times \quad}{3} = 6$$

$$\frac{2 \times \quad}{9} = 4$$

$$\frac{3 \times \quad}{7} = 6$$

M8 - 10.1 - " $x \pm a = b$ " HW

Answer should say $x = \underline{\quad}$

Solve for x , by *subtracting to both sides*.

$$x + 3 = 5$$

$$x + 2 = 7$$

$$3 + x = 5$$

$$7 = x + 3$$

$$4 + x = 8$$

$$4 = x + 1$$

Solve for x , by *adding to both sides*.

$$x - 2 = 3$$

$$x - 5 = 9$$

$$-7 + x = 2$$

$$-12 + x = 3$$

$$8 = x - 3$$

$$-10 = x - 7$$

$$x + 4 = -3$$

$$x + 5 = -2$$

$$9 + x = -6$$

$$a + x = -b$$

$$x + 2 = 0$$

$$-3 = x + 5$$

$$0 = x + 5$$

$$10 = 9 + x$$

$$-8 = 5 + x$$

$$a = b + x$$

$$x - 7 = -4$$

$$x - a = -b$$

$$-a + x = b$$

$$-9 + x = -2$$

$$-3 + x = -2$$

$$-2 = -4 + x$$

$$5 = -2 + x$$

$$4 = -4 + x$$

$$4 = -8 + x$$

$$-b = x - a$$

M8 - 10.1 - $-x \pm a = b$ HW

Solve for x

$$5 - x = 2$$

$$4 - x = 8$$

$$-x + 5 = 2$$

$$4 = 6 - x$$

$$7 = 5 - x$$

$$-2 = 5 - x$$

Solve for x

$$-x - 4 = 2$$

$$-x - 3 = -7$$

$$-3 - x = -3$$

$$3 = -2 - x$$

$$-4 = -1 - x$$

$$-5 = -4 - x$$

$$\begin{aligned} -2 &= 4 - x \\ -8 &= 6 - x \\ 7 &= 2 - x \\ -b &= a - x \\ 3 &= 8 - x \end{aligned}$$

$$\begin{aligned} 6 - x &= -10 \\ 2 - x &= -3 \\ -x + 2 &= 8 \\ -x + a &= -b \\ -x + 4 &= -3 \end{aligned}$$

$$\begin{aligned} -x - 2 &= 4 \\ -2 - x &= 6 \\ -5 - x &= 2 \\ -x - a &= b \\ -c - x &= -d \end{aligned}$$

$$\begin{aligned} 7 &= -x - 5 \\ -4 &= -6 - x \\ 3 &= -x - 7 \\ b &= -x - a \\ -d &= -c - x \end{aligned}$$

M8 - 10.2 - " $\pm ax = b$ " HW

Answer should say $x = \underline{\quad}$

Solve for x .

$$\begin{array}{l} 2x = 6 \\ \frac{2x}{2} = \frac{6}{2} \\ x = 3 \end{array}$$

$$\begin{array}{l} 2x = 6 \\ 2(3) = 6 \\ 6 = 6 \quad \checkmark \end{array}$$

$$5x = 45$$

$$24 = 8x$$

Solve for x

$$6x = 3$$

$$4x = 2$$

$$14x = 10$$

Solve for x

$$7x = 2$$

$$7x = 1$$

$$4 = 9x$$

Solve for x

$$24x = 18$$

$$3x = 3$$

$$45x = 27$$

$$\begin{array}{l} 3x = 12 \\ 10x = 20 \\ 5x = 65 \\ 30 = 6x \\ 12 = 3x \\ 0 = 2x \end{array}$$

$$\begin{array}{l} 8x = 2 \\ 1x = 2 \\ bx = a \\ 20 = 15x \\ 2 = 6x \\ 0 = 2x \end{array}$$

$$\begin{array}{l} 12 = 4x \\ -12 = 9x \\ 4 = 6x \\ 2 = 10x \\ -24 = 8x \\ 16 = -4x \end{array}$$

$$\begin{array}{l} 20x = 15 \\ 4x = 0 \\ 3x = -4 \\ 6x = -12 \\ -14x = 21 \\ -2x = 0 \end{array}$$

$$\begin{array}{l} 1 = 2x \\ 5 = 3x \\ 3 = 2x \\ 3x = 1 \\ 6x = 7 \\ 5x = 2 \end{array}$$

M8 - 10.2 - " $\frac{x}{a} = b$ " HW

$$\frac{1}{-2} = \frac{1}{-2} = \frac{-1}{2}$$

$$\frac{-x}{-2} = \frac{x}{-2} = \frac{-x}{2}$$

Solve for x

$$\frac{x}{2} = 4$$

$$\frac{x}{3} = 2$$

$$\frac{x}{-2} = 4$$

$$-\frac{x}{2} = 4$$

$$\frac{-x}{2} = 4$$

$$\frac{x}{-3} = 5$$

$$-1 = \frac{x}{-6}$$

$$\frac{x}{-5} = 0$$

$$-\frac{x}{7} = -3$$

$$-\frac{-x}{-3} = 5$$

$$-\frac{-x}{4} = 3$$

$$\frac{3}{x} = 1$$

$$\frac{x}{5} = 6$$

$$\frac{-x}{4} = 2$$

$$10 = \frac{x}{2}$$

$$2 = \frac{-x}{-4}$$

$$\frac{x}{3} = 1$$

$$\frac{x}{-4} = 2$$

$$0 = \frac{x}{5}$$

$$-2 = -\frac{-x}{-3}$$

$$\frac{-a}{x} = -b$$

$$\frac{x}{-9} = 2$$

$$2 = \frac{4}{x}$$

$$6 = \frac{x}{-4}$$

$$\frac{6}{x} = -4$$

$$\frac{-x}{-2} = 11$$

$$-3 = \frac{4}{x}$$

$$2 = -\frac{4}{x}$$

$$\frac{x}{5} = -2$$

$$-\frac{x}{2} = 4$$

$$7 = \frac{x}{2}$$

$$8 = -\frac{x}{3}$$

M8 - 10.2 - " $\frac{ax}{b} = c$ " HW

$$\frac{ax}{b} = \frac{a}{b}x$$

$$\frac{2x}{3} = \frac{2}{3}x$$

$$\frac{ax}{b} = \frac{a}{b}x$$

Solve for x

$$\frac{2x}{3} = 6$$

$$\frac{2}{3}x = 6$$

$$4 = \frac{2}{3}x$$

$$\frac{2x}{-9} = 4$$

$$10 = -\frac{20x}{5}$$

$$\frac{ax}{b} = c$$

$$\frac{4}{5}x = 6$$

$$-\frac{1}{7}x = 3$$

$$-\frac{-3x}{-7} = -6$$

$$\frac{2x}{5} = 4$$

$$\frac{10x}{3} = 2$$

$$\frac{3x}{5} = 6$$

$$\frac{9x}{2} = 3$$

$$6 = \frac{3}{4}x$$

$$2 = \frac{1x}{8}$$

$$4 = \frac{-2x}{7}$$

$$-4 = \frac{3x}{9}$$

$$\frac{12}{-4}x = -3$$

$$-\frac{5x}{7} = -10$$

$$\frac{ax}{-b} = c$$

$$-5 = \frac{-15x}{-2}$$

$$0 = \frac{-3x}{2}$$

$$1 = \frac{2x}{5}$$

M8 - 10.3 - " $\frac{a}{x} = b$ " HW

Solve for x

$$\begin{aligned} \frac{4}{x} &= 2 \\ \frac{4}{4} &= 2 \times x \\ \cancel{x} \times \frac{4}{\cancel{x}} &= 2 \times x \\ 4 &= 2x \\ \frac{4}{2} &= \frac{2x}{2} \\ 2 &= x \\ \boxed{x = 2} \end{aligned}$$

$$\begin{aligned} \frac{4}{x} &= 2 \\ \frac{4}{4} &= 2 \\ \frac{2}{2} &= 2 \\ 2 &= 2 \quad \checkmark \end{aligned}$$

$$\frac{3}{x} = 9$$

$$15 = \frac{6}{x}$$

$$\frac{-4}{x} = 2$$

$$\frac{-1}{x} = 4$$

$$\frac{3}{x} = -5$$

$$14 = \frac{-7}{x}$$

$$-5 = \frac{25}{x}$$

$$-6 = \frac{24}{x}$$

$$\begin{aligned} 12 &= \frac{3}{x} \\ 4 &= \frac{8}{x} \\ 2 &= \frac{10}{x} \end{aligned}$$

$$\begin{aligned} \frac{14}{x} &= 7 \\ \frac{x}{5} &= 10 \\ \frac{x}{9} &= -6 \end{aligned}$$

$$\begin{aligned} -15 &= -\frac{45}{x} \\ 22 &= \frac{-2}{x} \end{aligned}$$

$$\begin{aligned} -\frac{8}{x} &= 24 \\ \frac{-6}{x} &= -27 \\ \frac{a}{x} &= b \end{aligned}$$

M8 - 10.3 - " $\frac{a}{bx} = c$ " HW

Answer should say $x = \underline{\hspace{2cm}}$

Solve for x

$$\frac{24}{2x} = 3$$

$$\frac{16}{4x} = 2$$

$$\frac{-27}{3x} = 9$$

$$1 = \frac{3}{2x}$$

$$5 = \frac{3}{4x}$$

$$\frac{10}{3x} = 5$$

$$\frac{4}{-3x} = 6$$

$$3 = \frac{12}{6x}$$

$$0 = \frac{1}{2x}$$

$$3 = \frac{60}{4x}$$

$$4 = \frac{40}{5x}$$

$$\frac{3}{5x} = 2$$

$$\frac{2}{3x} = 5$$

$$\frac{5}{2x} = 5$$

$$\frac{15}{3x} = 5$$

$$\frac{36}{3x} = 4$$

$$\frac{4}{-3x} = 8$$

$$\frac{90}{3x} = -5$$

$$\frac{4}{5x} = 3$$

$$\frac{2}{5x} = 7$$

$$\frac{5}{-2x} = -3$$

M8 - 10.4 - " $\frac{ax}{bx} = \frac{c}{d}$ " HW

$$\frac{ax}{b} = \frac{a}{b}x$$

Solve for x by *cross multiplying*.

$$\begin{aligned} \frac{2x}{6} &= \frac{4}{3} \\ 3 \times 2x &= 4 \times 6 \\ 6x &= 24 \\ \frac{6x}{6} &= \frac{24}{6} \\ x &= 4 \end{aligned}$$

$$\begin{aligned} \frac{2x}{6} &= \frac{4}{3} \\ 2(4) &= \frac{4}{3} \\ \frac{8}{6} &= \frac{4}{3} \\ \frac{6}{6} &= \frac{3}{3} \\ \frac{4}{3} &= \frac{4}{3} \end{aligned}$$

$$\begin{aligned} \frac{2}{3}x &= \frac{5}{7} \\ 7 \times 2x &= 5 \times 3 \\ 14x &= 15 \\ \frac{14x}{14} &= \frac{15}{14} \\ x &= \frac{15}{14} \end{aligned}$$

$$\begin{aligned} \frac{2}{3}x &= \frac{5}{7} \\ \frac{2}{3} \left(\frac{15}{14} \right) &= \frac{5}{7} \\ \frac{5}{7} &= \frac{5}{7} \end{aligned}$$

$$\frac{2}{3}x = \frac{4}{5}$$

$$\frac{2}{7}x = \frac{1}{4}$$

$$\frac{9}{4}x = \frac{7}{2}$$

$$\frac{1}{8} = \frac{2}{4}x$$

$$\frac{4}{3x} = \frac{2}{3}$$

$$\frac{2}{3x} = \frac{4}{3}$$

$$\frac{1}{8} = \frac{2}{4x}$$

$$\begin{aligned} \frac{2}{9}x &= \frac{2}{9} \\ \frac{1}{9}x &= \frac{2}{9} \\ \frac{3}{9}x &= \frac{6}{9} \\ \frac{1}{3}x &= \frac{2}{3} \\ \frac{3}{5}x &= \frac{10}{10} \end{aligned}$$

$$\begin{aligned} \frac{3x}{4} &= \frac{6}{8} \\ -3x &= \frac{6}{2} \\ \frac{5}{4} &= \frac{7}{6} \\ \frac{4}{5}x &= \frac{6}{7} \end{aligned}$$

$$\begin{aligned} \frac{2x}{3} &= \frac{1}{2} \\ \frac{1x}{-9} &= \frac{1}{2} \\ \frac{a}{b}x &= \frac{c}{d} \end{aligned}$$

$$\begin{aligned} \frac{5}{x} &= \frac{7}{4} \\ \frac{3}{3} &= \frac{4}{9} \\ \frac{3x}{5} &= \frac{2}{10} \\ \frac{5}{2} &= \frac{10}{2x} \end{aligned}$$

$$\begin{aligned} \frac{1}{a} &= \frac{-2}{7} \\ -\frac{2x}{a} &= \frac{a}{7} \\ -\frac{1}{b} &= \frac{a}{bx} \end{aligned}$$

M8 - 10.5 - " $\pm ax + b = c$ " HW

Answer should say $x = \underline{\quad}$

Solve for x

$$2x + 3 = 9$$

$$3x + 6 = 12$$

$$-5 = 2x + 3$$

$$2 + 3x = 2$$

$$-2x + 4 = 8$$

$$-3x + 8 = 17$$

$$4 = 2 - 2x$$

$$-2 = 7 - 3x$$

$$\begin{aligned} 4x + 8 &= -4 \\ 5x + 10 &= 30 \\ 2x + 9 &= 27 \\ 2x - 3 &= 9 \end{aligned}$$

$$\begin{aligned} 22 &= 8x + 6 \\ 18 &= 2x + 4 \\ -7 &= 2x + 3 \\ -4 &= 4x - 8 \end{aligned}$$

$$\begin{aligned} 4x - 8 &= -4 \\ 5x - 10 &= 30 \\ 3x - 2 &= -2 \\ 3x - 6 &= 12 \end{aligned}$$

$$\begin{aligned} 4 - 6x &= -12 \\ 8 - 3x &= 32 \\ 5 - 7x &= -16 \\ -5 - 7x &= -26 \end{aligned}$$

$$\begin{aligned} -5x + 10 &= -20 \\ -4x + 5 &= 21 \\ -2x - 4 &= 8 \\ -4x - 5 &= 19 \end{aligned}$$

M8 - 10.5 - " $\frac{\pm x}{a} + b = c$ " HW

Solve for x

$$\frac{x}{2} + 3 = 7$$

$$\frac{x}{3} + 4 = 5$$

$$7 + \frac{x}{6} = 5$$

$$\frac{1}{2}x - 3 = 9$$

$$\frac{x}{-2} + 3 = 7$$

$$\frac{x}{-3} + 4 = 5$$

$$\frac{x}{4} + 4 = 2$$

$$-5 = \frac{x}{9} + 7$$

$$\frac{x}{-2} - 3 = 9$$

$$\frac{x}{-4} + 4 = 2$$

$$2 + \frac{-x}{7} = 3$$

$$\frac{x}{5} + 2 = 12$$

$$-2 = -2 + \frac{x}{8}$$

$$-2 - \frac{x}{7} = 3$$

$$\frac{x}{-5} + 2 = 12$$

$$7 - \frac{x}{6} = 5$$

$$\frac{x}{4} - 4 = 2$$

$$5 = \frac{x}{9} + 2$$

$$-7 + \frac{x}{6} = -5$$

$$\frac{x}{-5} - 2 = 6$$

$$-7 - \frac{x}{6} = -5$$

$$\frac{x}{5} - 2 = 6$$

$$-2 = -2 + \frac{x}{8}$$

$$-2 + \frac{x}{7} = 3$$

$$\frac{x}{-3} - 4 = 5$$

M8 - 10.6 - " $a(x + b) = c$ " Distributing HW

Solve for x

$$2(x - 2) = 4$$

$$-3(x + 2) = 3$$

$$-2(x - 1) = 6$$

$$-6(x - 5) = 30$$

$$3(x + 2) = 10$$

$$4(x - 1) = 15$$

$$5(x - 2) = 10$$

$$5(x + 2) = 25$$

$$9 = 3(x - 3)$$

$$5(x - 1) = -17$$

$$-2(x + 4) = -10$$

$$4(x - 2) = 4$$

$$-6(x + 2) = 18$$

$$18 = -3(4 - x)$$

$$-2(x + 2) = 19$$

$$-3(1 + x) = 9$$

$$2(x + 3) = 8$$

$$-4(x - 4) = -64$$

$$15 = -3(x + 6)$$

$$-7(1 - x) = 2$$

$$2(x - 3) = 7$$

M8 - 10.6 - " $\frac{a}{b}(\frac{x}{c} + \frac{d}{e}) = \frac{f}{g}$ " Distributing HW

Solve for x

$$\frac{1}{2}(x - 2) = 4$$

$$\frac{1}{3}(x + 2) = 3$$

$$\frac{2}{3}(x + 1) = 4$$

$$\frac{1}{5}(x + 2) = \frac{3}{5}$$

$$-3\left(\frac{1}{2} + x\right) = \frac{21}{2}$$

$$-2\left(\frac{1}{3} + x\right) = \frac{32}{3}$$

$$\begin{aligned} 9 &= 3(x - 3) \\ 18 &= \frac{1}{3}(4 + x) \end{aligned}$$

$$\begin{aligned} \frac{1}{4}(x - 3) &= 6 \\ \frac{1}{2}(x - 2) &= 6 \end{aligned}$$

$$\begin{aligned} \frac{1}{3}(x + 1) &= \frac{5}{3} \\ \frac{1}{4}(x - 2) &= \frac{5}{4} \end{aligned}$$

$$\begin{aligned} -\frac{3}{2}\left(\frac{1}{2} + x\right) &= \frac{39}{4} \\ -\frac{1}{4}\left(2x - \frac{1}{2}\right) &= \frac{23}{8} \end{aligned}$$

M8 - 10.6 - " $\frac{a}{x+b} = c$ " Distributing HW

Solve for x

$$\frac{15}{x+3} = 5$$

$$\frac{20}{x-2} = 20$$

$$\frac{5}{2x+1} = 1$$

$$\frac{100}{1-2x} = 10$$

$$\frac{x+3}{x-2} = 6$$

$$4 = \frac{x+3}{x-3}$$

$$\frac{6}{x+1} = 2$$
$$\frac{12}{x-2} = 6$$

$$\frac{6}{5x-2} = 3$$
$$\frac{6}{x-1} = 5$$

$$\frac{x+8}{x-1} = 4$$
$$\frac{5}{2} = \frac{x+3}{x-3}$$

M8 - 10.7 - LCD " $x + \frac{b}{c} = \frac{d}{e}$ " HW

Solve for x by multiplying each term by the LCD

$$\begin{aligned}
 x - 1 &= \frac{1}{2} \\
 2 \times (x - 1) &= \frac{1}{2} \times 2 \\
 2x - 2 &= 1 \\
 +2 & \quad +2 \\
 \frac{2x}{2} &= \frac{3}{2}
 \end{aligned}$$

$$x = \frac{3}{2}$$

$$\begin{aligned}
 x - 1 &= \frac{1}{2} \\
 \left(\frac{3}{2}\right) - 1 &= \frac{1}{2} \\
 \frac{3}{2} - \frac{2}{2} &= \frac{1}{2} \\
 \frac{1}{2} &= \frac{1}{2} \quad \checkmark
 \end{aligned}$$

$$x - 1 = \frac{1}{4}$$

$$\frac{1}{5} = x + 1$$

$$3 + x = \frac{1}{3}$$

$$\begin{aligned}
 x + \frac{1}{6} &= \frac{1}{3} \\
 6 \times \left(x + \frac{1}{6}\right) &= \frac{1}{3} \times 6 \\
 6x + \frac{6}{6} &= \frac{6}{3} \\
 6x + 1 &= 2 \\
 -1 & \quad -1 \\
 \frac{6x}{6} &= \frac{1}{6}
 \end{aligned}$$

$$x = \frac{1}{6}$$

$$\begin{aligned}
 x + \frac{1}{6} &= \frac{1}{3} \\
 \left(\frac{1}{6}\right) + \frac{1}{6} &= \frac{1}{3} \\
 \frac{1}{6} + \frac{1}{6} &= \frac{2}{6} \\
 \frac{2}{6} &= \frac{1}{3} \quad \checkmark
 \end{aligned}$$

$$\frac{1}{4} + x = \frac{1}{3}$$

$$\begin{aligned}
 x - \frac{1}{4} &= \frac{1}{2} \\
 x - \frac{1}{6} &= -\frac{1}{3}
 \end{aligned}$$

$$\begin{aligned}
 2 &= x - \frac{3}{4} \\
 5 &= \frac{1}{2} - \frac{x}{3}
 \end{aligned}$$

$$\begin{aligned}
 x + \frac{1}{4} &= \frac{2}{3} \\
 \frac{x}{2} + \frac{1}{4} &= \frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 2 + x &= \frac{7}{2} \\
 \frac{3}{2} + \frac{x}{2} &= \frac{5}{4}
 \end{aligned}$$

M8 - 10.8 - " $ax + b = cx + d$ " HW

Solve for x

$$\begin{array}{r} 2x = 4 + x \\ -x \quad -x \end{array}$$

$$x = 4$$

$$\begin{array}{l} 2x = 4 + x \\ 2(4) = 4 + 4 \\ 8 = 8 \end{array}$$

$$2x = 3 + x$$

$$2x = 5 + x$$

$$4x = 16 + 3x$$

$$4x = 12 + 2x$$

$$6x = 5x - 9$$

$$4x + 3 = 3x - 2$$

$$6x + 2 = 5x - 6$$

$$2x + 1 + 3x = 2 + 4x$$

$$\begin{array}{l} -3x = 18 - 4x \\ 8x = -12 + 4x \end{array}$$

$$\begin{array}{l} -33 + 3x = 14x \\ 10 + 4x = 9x \\ 6 + 5x = 3x \end{array}$$

$$\begin{array}{l} 5x - 3 = 3x - 1 \\ 6x + 4 = 2x + 12 \end{array}$$

$$\begin{array}{l} 7x + 5 = 2x + 5 \\ 3x - 4 = 2x - 9 \end{array}$$

M8 - 10.8 - " $ax + b = cx + d$ " HW

Solve for x

$$\begin{array}{r} 2x + 3 = 4 + x \\ -x \quad -x \\ \hline x + 3 = 4 \\ -3 \quad -3 \\ \hline \end{array}$$

$$x = 1$$

$$\begin{array}{l} 2x + 3 = 4 + x \\ 2(1) + 3 = 4 + (1) \\ 5 = 5 \quad \checkmark \end{array}$$

$$5x - 9 = -4x + 18$$

$$-2x - 1 = 4x + 2$$

$$5x - 4 = 4 - 3x$$

$$\begin{array}{r} 2x + 4 + x = 13 \\ 3x + 4 = 13 \\ -4 \quad -4 \\ \hline 3x = 9 \\ \frac{3x}{3} = \frac{9}{3} \end{array}$$

$$x = 3$$

$$\begin{array}{l} 2x + 4 + x = 13 \\ 2(3) + 4 + (3) = 13 \\ 13 = 13 \quad \checkmark \end{array}$$

$$4x - 5 + x = 7 - x$$

$$\begin{array}{l} 4x + 3 = 3x + 12 \\ 3x + 2 = 2x + 3 \end{array}$$

$$\begin{array}{l} 3x + 2 = 6 + x \\ 2x - 8 = 4 - 4x \\ 2x - 3 = 8x - 12 \end{array}$$

$$\begin{array}{l} -3x = 2 + 11x - 6 \\ 5x + 2x + 6 + 1 = 0 \\ 4x - 5 + x = 7 - x \end{array}$$

$$\begin{array}{l} x - 5x + 3 = -9 \\ 5 - 2x + 3 = 2x \end{array}$$

M8 - 10.9 - Creating/Solving Equations HW

Write a let statement, create an equation, solve the equation, find the number, circle your answer, check your answer, state the number in a sentence.

Five more than a number is seven.

The sum of the number and 17 is 65.
A number increased by 13 is 51.
12 added to a number is 71.

A number decreased by eight is ten.

Five subtracted from a number is 67.
21 less than the number is 37.
The difference between x and 5 is 3^* .
And number minus 11 is 76
A number less than three is one.

A number subtracted from seven is five.

39 decreased by a number is 12.
The difference between x and 2 is 3^* .
The difference between x and 13 is 45^* .

Two times a number plus 6 equals 18.

A number multiplied by five decreased by seven is 23.
The product of a number and seven added to three is 94.
Five less than nine times a number is 148.
75 exceeds three times the number by 24.

M8 - 10.9 - Creating/Solving Equations HW

Write a let statement, create an equation, solve the equation, find the number, circle your answer, check your answer, state the number in a sentence.

Three times a number less than 12 is six.

Seven times a number less than 96 is 40.
17 decreased by twice a number is nine.
One quarter a number +10 equals 30.

Twice the sum of the number and five is 30.

Triple the difference of a number and two is 18.
Half the sum of the number and five is 20.
The sum of twice a number and 4 all divided by 2 is 9.

Twice the sum of the number and one equals four less than three times the number

Five more than one half the number equals twice the number.
Two thirds of a number minus 10 is half the number plus ten.
One half the number minus 40 equals $\frac{1}{5}$ of a number minus 10.

M8 - 10.9 - One vs Two Variable Equations HW

Write let statements, create an equation, solve the equation, find the numbers, circle your answers, check your answers, state the numbers in a sentence.

Two numbers sum to 24. The 2nd is four more than the 1st.

Two numbers sum to 44. The 2nd is one less than twice the 1st.
Two numbers sum to 33. The 2nd is twice the sum of the 1st and 3*

A number is six less than another.
Twice the sum of the first number and one is equal to triple the second.

The difference between two numbers is five.
Twice the larger equals quadruple the smaller*.

M8 - 10.9 - 2/3 Number/Consecutive Equations HW

Write a let statements, create an equation, solve the equation, find the numbers, circle your answers, check your answers, state the numbers in a sentence.

The sum of three numbers is 32. The 2nd number is twice the 1st. The 3rd is two more than the 1st.

The sum of three numbers is 43. The 2nd number is triple the 1st. The 3rd number is one more than the 2nd number.

The sum of three numbers is 75. The 2nd number is two less than triple the 1st. The 3rd number is five more than the 2nd.

The sum of two consecutive numbers is five.

The sum of two consecutive numbers is 31.
The sum of two consecutive numbers is 77.

The sum of three consecutive numbers is 51.

The sum of three consecutive numbers is negative 6
The sum of three consecutive numbers is 204.

M8 - 10.9 - 2/3 Number/Consecutive Equations HW

Write a let statements, create an equation, solve the equation, find the numbers, circle your answers, check your answers, state the numbers in a sentence.

Find two consecutive even integers whose sum is 14.

Find two consecutive even integers whose sum is 26.
Find two consecutive odd integers whose sum is 28.

Find three consecutive integers such that five more than triple the 1st is six more than double the 3rd.

Find four consecutive integers such that the 2nd and the 4th is 114.

Find three consecutive integers such if that you doubled the sum it would equal 72.

Find three consecutive integers such that the sum decreased by the second integer equals 32.

Find three consecutive integers such that twice the sum minus triple the third equals 6.

Find four consecutive integers such that the sum of the 1st and the 4th equals the sum of the 2nd and the 3rd**.

M8 - 10.9 - Age/Now-Then Equations HW

Write let statements, create an equation, solve the equation, find the numbers, circle your answers, check your answers, state the numbers in a sentence.

Two years less than Bob's age is 22 less than double his age.

Three years more than twice Amanda's age is seven less than triple her age.

Five more than Pat's age is 15 less than double Pat's age.

A year ago Bob was one less than twice his age 5 years ago.

Two years from now Alex is twice his age.

Twice Kiera's age in five years from now is 10 less than triple her age now.

M8 - 11.1 - Probability of Independent Events HW

What is the probability of drawing a queen from a deck of cards?

What is the probability of getting tails from flipping a coin?

What is the probability of rolling a six-sided die and getting a two?

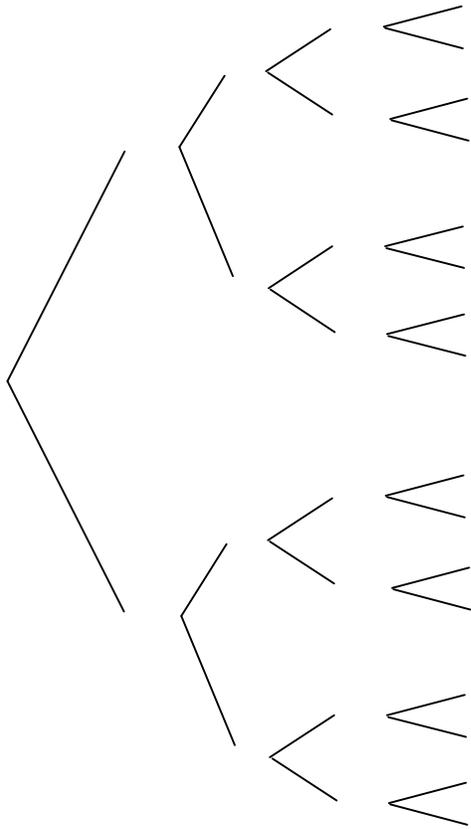
What is the probability of randomly drawing a red marble from a bag 3 red marbles and 2 blue marbles?

What is the sample space of flipping a coin?

What is the sample space of taking a marble out of a bag of red marbles and blue marbles?

M8 - 11.1 - Probability HW

1. Anakin flips a coin four times. Fill in the tree diagram for each possible outcome.
 - a. What is the probability he gets heads four times in a row?
 - b. What is the probability that he rolls two heads and two tails in any order?



2. Luke has two standard six-sided dice. One die is light and the other is dark.
 - a. When he rolls both die, what is the probability of rolling a sum greater than 8?
 - b. What is the probability that the number on the light die is greater than the number on the dark die?
 - c. What is the probability that the sum of the numbers is less than 10?

		Light Die						
		1	2	3	4	5	6	$P(\text{sum} > 8) =$
Dark Die	1							
	2							
	3							$P(L > D) =$
	4							
	5							
	6							$P(\text{sum} < 10) =$

M8 - 11.1 - Probability of Independent Events HW

Calculating probabilities

$$\text{Probability} = \frac{\# \text{ of successful outcomes}}{\# \text{ total outcomes}}$$

What is the probability of choosing a queen from a deck of cards?

What is the probability of choosing a card from a deck that is less than a 5?

What is the probability of winning a raffle if you purchased 3 tickets and a total of 90 tickets were sold?

What is the probability of choosing a red marble from a bag with 6 blue, 4 red and 2 yellow marbles?

Calculating probabilities of independent events.

What is the probability of getting two heads if two coins are tossed?

What is the probability of choosing a spade from a deck of cards and rolling a 3 on a die?

What is the probability of flipping a tail on a coin and choosing the ace of diamonds from a deck of cards?

M8 - 11.1 - Probability of Dependent Events HW

There is a bag of marbles containing 12 blue, 7 red, 1 yellow and 4 green.

What is the probability of choosing 2 blue marbles in a row?

What is the probability of choosing a green marble and then a red marble?

What is the probability of choosing a blue marble and then the yellow marble?

What is the probability of choosing two spades in a row from a deck of cards?

What is the probability of choosing two queens in a row from a deck of cards?

What is the probability of choosing two face cards (J, Q, K, A) in a row?

The End

