

M9 - 3.1 - Add/Subtract Exponent Laws HW

Write each product as a repeated multiplication then as a single exponent (power).

$$3^2 \times 3^3 = (3 \times 3) \times (3 \times 3 \times 3) = 3^5 \quad 5^3 \times 5^2 =$$

$$2^3 \times 2^2 = \quad 7^3 \times 7^4 =$$

$$9^4 \times 9^5 =$$

Write each product as a single exponent (power). Show your work! Without Brackets.

$$3^2 \times 3^3 = 3^{2+3} = 3^5 \quad 7^3 \times 7^4 = \quad (-3)^2 \times (-3)^3 =$$

$$5^3 \times 5^4 = \quad 3^7 \times 3^2 = \quad (-4)^3 \times (-4)^5 =$$

$$4^7 \times 4^2 = \quad 8^2 \times 8 = \quad (-2)^3 \times (-2)^5 =$$

Write each quotient as a repeated multiplication in fraction form then as a single power (exponent).

$$3^4 \div 3^2 = \frac{3 \times 3 \times 3 \times 3}{3 \times 3} = 3^2 \quad 3^5 \div 3^3 =$$

$$4^4 \div 4^2 = \quad 6^2 \div 6^2 =$$

$$2^3 \div 2^2 = \quad (-4)^3 \div (-4) =$$

Write each quotient of powers as a single power (exponent). Show your work.

$$3^4 \div 3^2 = 3^{4-2} = 3^2 \quad 2^4 \div 2^2 = \quad (-2)^6 \div (-2)^3 =$$

$$4^7 \div 4^4 = \quad 8^6 \div 8^4 = \quad (-3)^5 \div (-3)^3 =$$

$$\frac{3^5}{3^2} = \quad \frac{8^4}{8^2} = \quad \frac{5^3}{5^2} =$$

$$\frac{6^5}{6^2} = \quad \frac{4^2}{4} = \quad \frac{(-3)^4}{(-3)^2} =$$