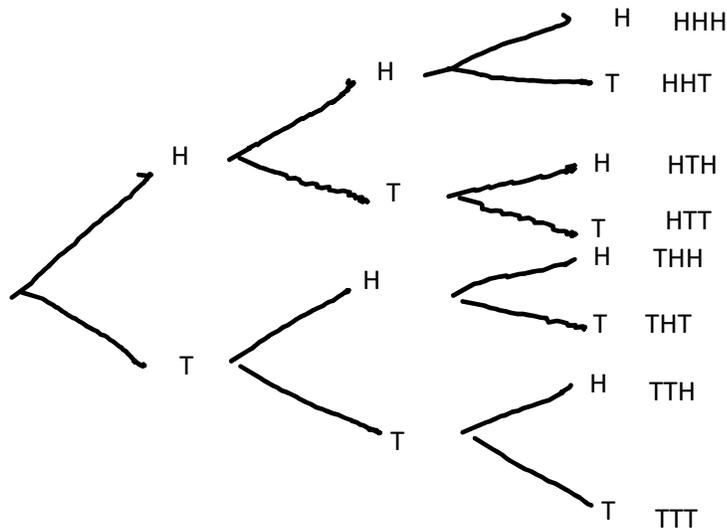


# C12 - 11.3 - (outcomes per trial)<sup># of trials</sup> Notes

If you flip a coin three times what is the total number of outcomes? Draw a tree diagram to confirm.

$$\frac{2}{\text{H,T}} \times \frac{2}{\text{H,T}} \times \frac{2}{\text{H,T}} = 2^3 = 8$$

(outcomes per trial)<sup># of trials</sup>  
 $2^3 = 8$



If a test has 10 true and false questions how many answer keys are there possible?

(outcomes per trial)<sup># of trials</sup>  
 $2^{10} = 1024$

If a test has A, B, C, D, multiple-choice answers with six questions how many answer keys are there possible?

(outcomes per trial)<sup># of trials</sup>  
 $4^6 = 4096$

If a family has 8 children what is the number of combinations of boys and girls?

(outcomes per trial)<sup># of trials</sup>  
 $2^8 = 256$