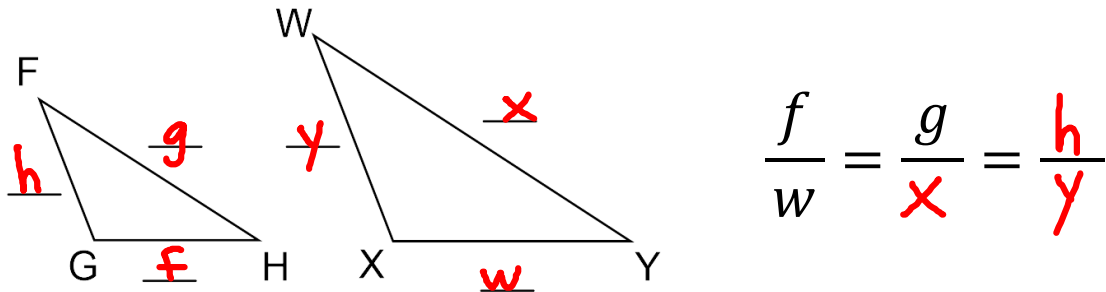


MFM2P – Course Review

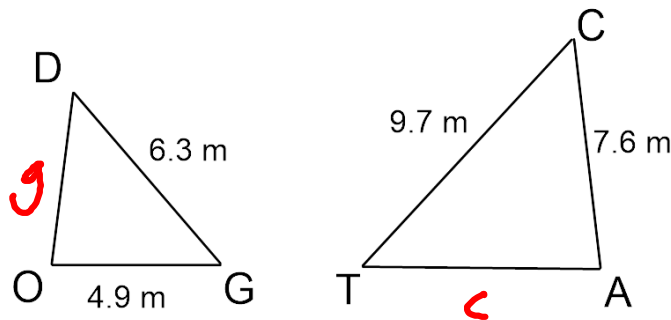
Unit 1: Similar Triangles

1. Two triangles are similar if their angles are the same and their corresponding sides are proportional.

2. Triangle FGH is similar to triangle WXY



3. Triangle DOG is similar to triangle CAT. Find the lengths of the missing sides.



$$\frac{d}{c} = \frac{g}{a} = \frac{g}{f}$$

$$\frac{4.9}{c} = \frac{6.3}{9.7} = \frac{g}{7.6}$$

Side c

$$\frac{4.9}{c} = \frac{6.3}{9.7} \text{ (FLIP)}$$

$$4.9 \times \frac{c}{4.9} = \frac{9.7}{6.3} \times 4.9$$

$$c = 7.5 \text{ m}$$

Side g

$$7.6 \times \frac{6.3}{9.7} = \frac{g}{7.6} \times 7.6$$

$$g = 4.9 \text{ m}$$

Unit 2: Trigonometry

1. The sum of the angles in a triangle is 180°.
2. The Pythagorean Theorem is $a^2 + b^2 = c^2$ where c is the length of the hypotenuse of a right triangle.
3. $\sin(\text{angle}) = \frac{\text{opposite}}{\text{hypotenuse}}$, $\cos(\text{angle}) = \frac{\text{adjacent}}{\text{hypotenuse}}$, $\tan(\text{angle}) = \frac{\text{opposite}}{\text{adjacent}}$
4. A clever way to remember the information from #3 is soh cah toa
5. When we have an angle, we use the sin, cos and tan buttons.
6. When we are looking for an angle, we use the sin⁻¹, cos⁻¹ and tan⁻¹ buttons.
7. Solve for the indicated side or angle.

