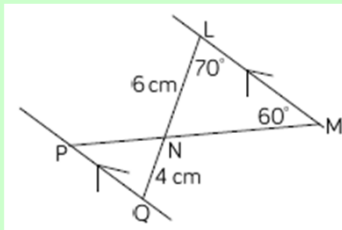


# Year 10 Mathematics Learning Journey: Unit 3 - Trigonometry

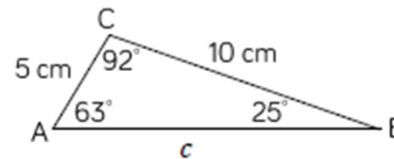


**Step 16 (H):**  
Selecting the Sine or Cosine Rule

Calculate the length of PQ.

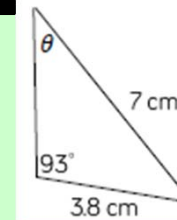
**Steps 14 & 15 (H):**  
Cosine Rule

Find the exact value of length AB.



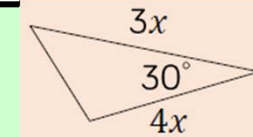
**Steps 12 & 13 (H):**  
Sine Rule

Calculate missing angle  $\theta$ .



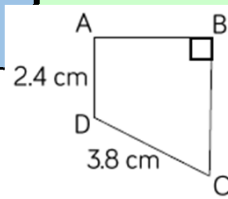
**Step 11 (H):** Area of a triangle

Find an expression for the area of this triangle.



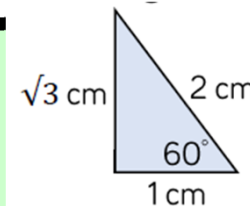
**Step 8: Right-angled triangle problems**

ABCD is a trapezium. Angle BCD is  $48^\circ$ . How many side lengths and angles can you find?



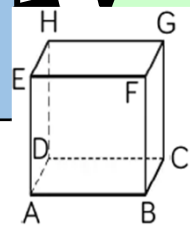
**Step 9: Key angles**

Find the exact value of  $\tan 30^\circ$ .



**Step 10 (H):** Use trigonometry in 3-D shapes

The diagram shows a cube. AB = 10cm, find length BH.



**Step 7 (R):**  
Pythagoras' Theorem

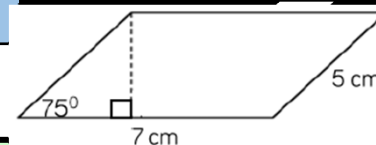
What other topics could Pythagoras' theorem link to?

**Step 6: Finding angles**

What is the difference between  $\sin x$  and  $\sin^{-1} x$ ?

**Step 5: Finding side lengths**

Calculate the area of a parallelogram.



**Step 2:**  
Hypotenuse, opposite, adjacent

Label the sides.



**Achievement** **resilience**

**Community**

**PERSEVERANCE**

**Pride**

**SHUTTLEWORTH**



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