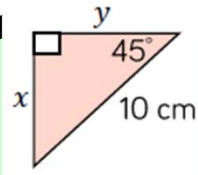# Year 10 Mathematics Learning Journey: Unit 3 – Trigonometry

Step 9: Key angles
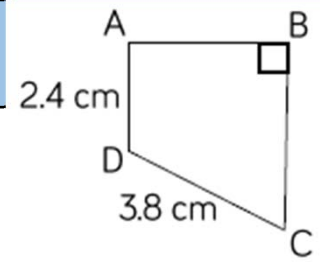Find the exact values of x and y.

y
45°
x
10 cm

Step 9: Key angles
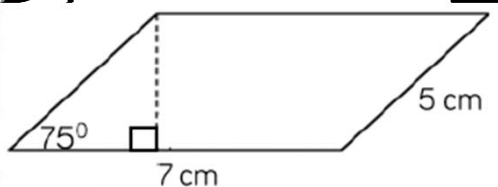What do we mean by 'leave your answer as an exact value'?

Step 8: Right-angled triangle problems
ABCD is a trapezium. Angle BCD is 48^0. How many side lengths and angles can you find?

A   B
2.4 cm
D
3.8 cm
C

Step 4: Sine and Cosine – side lengths
Calculate the area of a parallelogram.

5 cm
75°
7 cm

Step 5: Finding side lengths
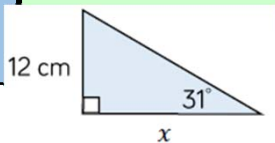How do we know which trigonometric ratio to use?

Step 6: Finding angles
What is the difference between $\sin x$ and $\sin^{-1} x$?

Step 7 (R): Pythagoras' Theorem
What other topics could Pythagoras' theorem link to?

Step 3: Tangent ratio – side lengths
Find the length of *x*.

12 cm
31°
x

Step 2: Hypotenuse, opposite, adjacent
Label the sides.

50°

Step 1: Ratio in right-angled triangles
Find the value of x.

2 cm
1 cm
30°
100 cm
x
30°