Pythagorean Theorem and Trigonometry

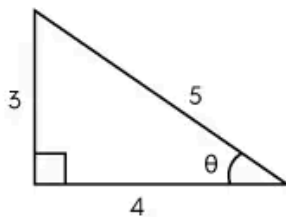Find sin θ, cos θ and tan θ as fractions for each right triangle.
Use,

$$\sin \theta = \frac{\text{opposite side}}{\text{hypotenuse}} \qquad \cos \theta = \frac{\text{adjacent side}}{\text{hypotenuse}} \qquad \tan \theta = \frac{\text{opposite side}}{\text{adjacent side}}$$
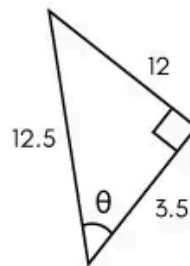
1)

3   5

4

θ

$\sin \theta = \dfrac{\boxed{}}{\boxed{}}$

$\cos \theta = \dfrac{\boxed{}}{\boxed{}}$

$\tan \theta = \dfrac{\boxed{}}{\boxed{}}$

2)

12

12.5

θ   3.5

$\sin \theta = \dfrac{\boxed{}}{\boxed{}}$

$\cos \theta = \dfrac{\boxed{}}{\boxed{}}$

$\tan \theta = \dfrac{\boxed{}}{\boxed{}}$

3)

1.5

θ

2.5   2

$\sin \theta = \dfrac{\boxed{}}{\boxed{}}$

$\cos \theta = \dfrac{\boxed{}}{\boxed{}}$

$\tan \theta = \dfrac{\boxed{}}{\boxed{}}$
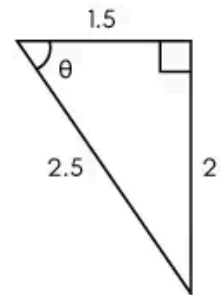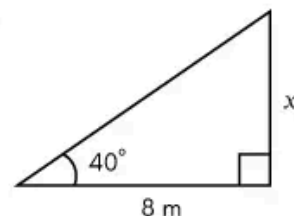
Find the length of the unknown side marked '*x*' in each right triangle. Work out on a seperate sheet of paper.

4)

x   20 cm

70°

x = _____

5)

x

40°

8 m

x = _____