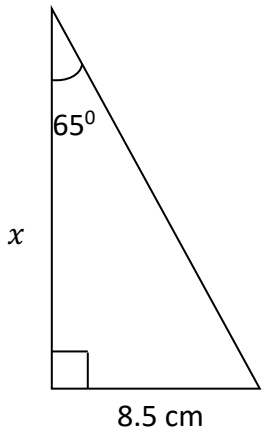
Brilliance Tuition Centre, Redbank Plains

MATHS WORKSHEETS – TRIGONOMETRY – FIND MISSING SIDE IN A RIGHT-ANGLED TRIANGLE

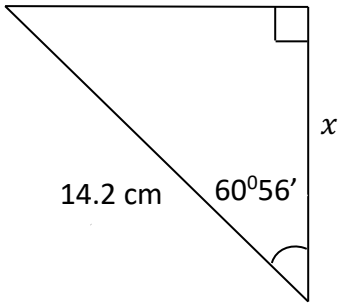
Find the length of the side marked x in each right-angled triangle correct to two decimal places.

1.



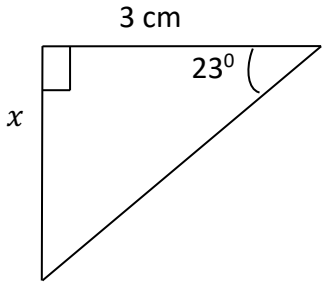
Answer:

2.



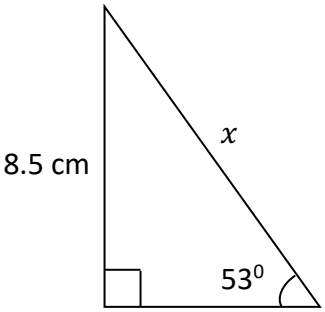
Answer:

3.



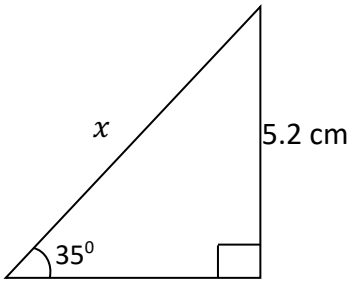
Answer:

4.



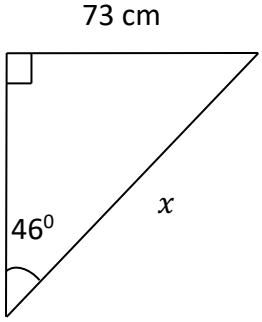
Answer:

5.



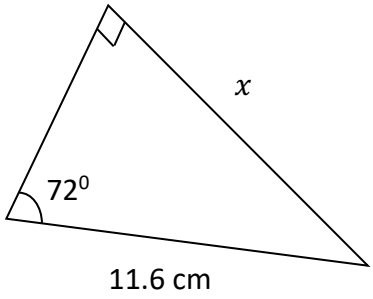
Answer:

6.



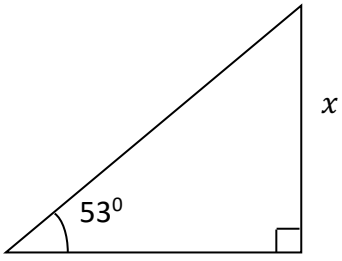
Answer:

7.



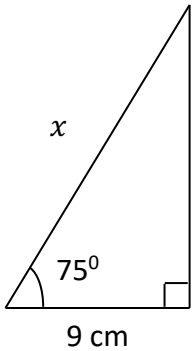
Answer:

8.



Answer:

9.



Answer:

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Answer Key:

1 $\frac{Opposite}{Adjacent} = \frac{8.5}{x} = \tan 65^0 , x = \frac{8.5}{2.1445} = 3.96\ cm$

2 $\frac{Adjacent}{Hypotenuse} = \frac{x}{14.2} = \cos 60^0 56' \ ; \ x = 14.2 * 0.48583 = 6.90\ cm$

3 $\frac{Opposite}{Adjacent} = \frac{x}{3} = \tan 23^0 , x = 3 * 0.4245 = 1.27\ cm$

4 $\frac{Opposite}{Hypotenuse} = \frac{8.5}{x} = \sin 53^0 , x = \frac{8.5}{0.79864} = 10.64\ cm$

5 $\frac{Opposite}{Hypotenuse} = \frac{5.2}{x} = \sin 35^0 , x = \frac{5.2}{0.5736} = 9.07\ cm$

6 $\frac{Opposite}{Hypotenuse} = \frac{73}{x} = \sin 46^0 , x = \frac{73}{0.71933} = 101.48\ cm$

7 $\frac{Opposite}{Hypotenuse} = \frac{x}{11.6} = \sin 72^0 , x = 11.6 * 0.951057 = 11.03\ cm$

8 $\frac{Opposite}{Adjacent} = \frac{x}{22} = \tan 53^0 , x = 22 * 1.32704 = 29.19\ cm$

9 $\frac{Adjacent}{Hypotenuse} = \frac{9}{x} = \cos 75^0 , x = \frac{9}{0.258819} = 34.77\ cm$