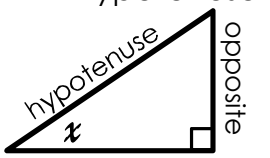
Name: ..... **Date:** .....

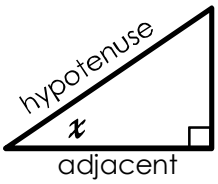
Trigonometry.

These are the three trigonometry ratios that relate angles and sides in any right-angled triangle:

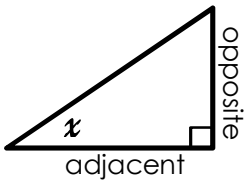
$\sin x = \frac{\text{opposite}}{\text{hypotenuse}}$



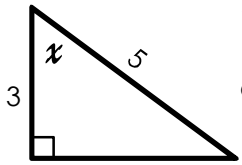
$\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$



$\tan x = \frac{\text{opposite}}{\text{adjacent}}$



Example:

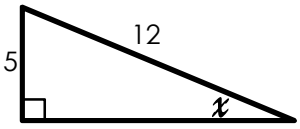


$\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$

$\cos x = \frac{5}{3}$

$x = 53°$

Example:



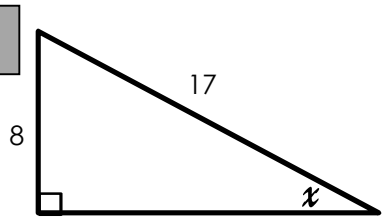
$\sin x = \frac{\text{opposite}}{\text{hypotenuse}}$

$\sin x = \frac{5}{12}$

$x = 25°$

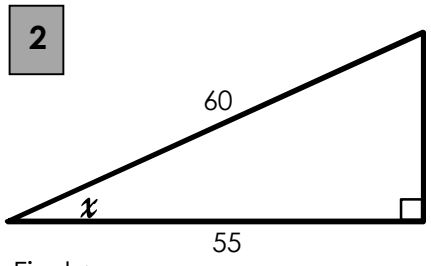
Choose one of the ratios to calculate the value of x to the nearest whole number.

1



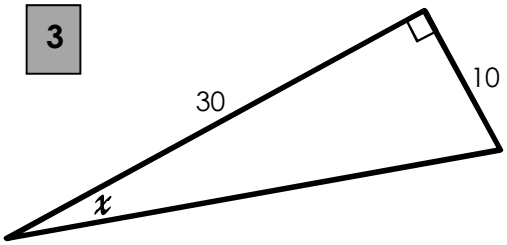
Find x

2



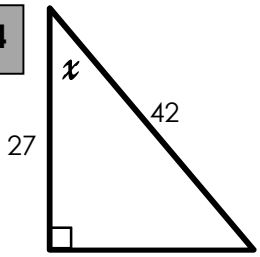
Find x

3



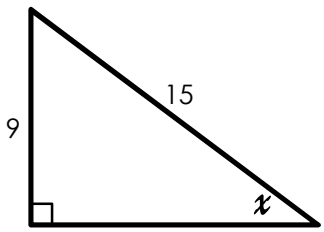
Find x

4



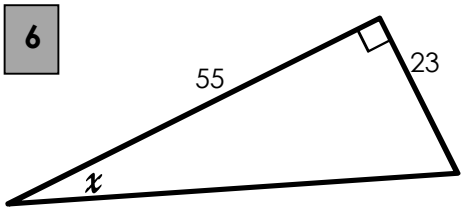
Find x

5



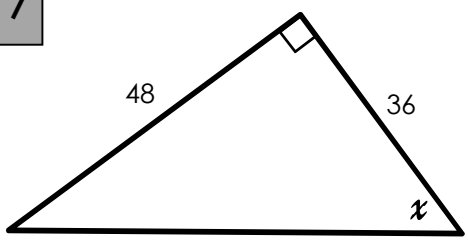
Find x

6



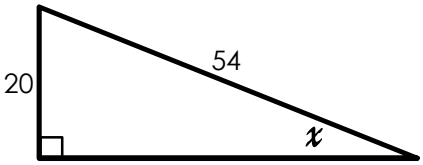
Find x

7



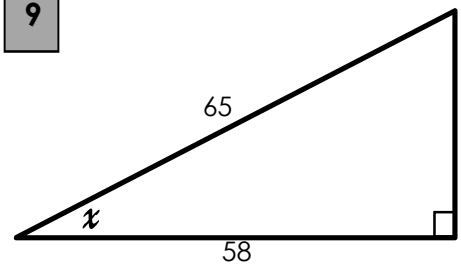
Find x

8



Find x

9



Find x

Name: ..... **Date:** .....

Trigonometry.

These are the three trigonometry ratios that relate angles and sides in any right-angled triangle:

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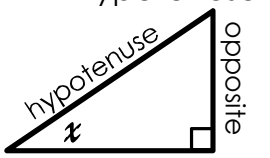
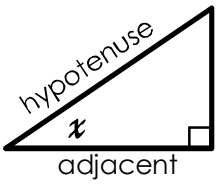
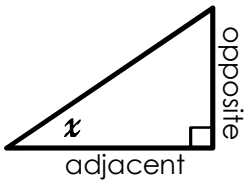


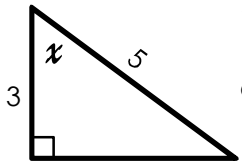
$\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$



$\tan x = \frac{\text{opposite}}{\text{adjacent}}$



Example:



$\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$

$\cos x = \frac{5}{3}$

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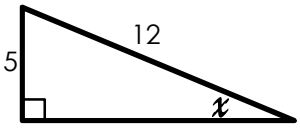
Example:



$\sin x = \frac{\text{opposite}}{\text{hypotenuse}}$

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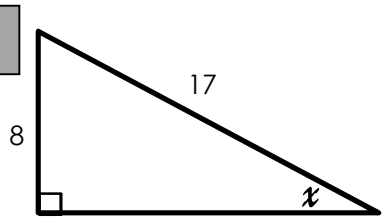
Choose one of the ratios to calculate the value of x to the nearest whole number.

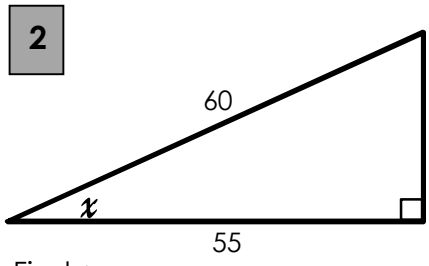
1



Find x

Use the sin ratio. $x = 28°$.

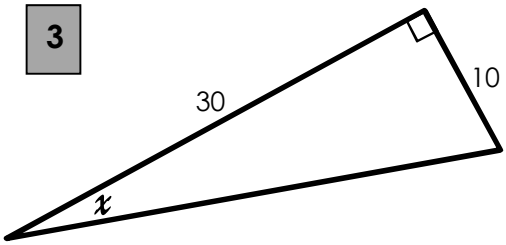
2



Find x

Use the cos ratio. $x = 24°$.

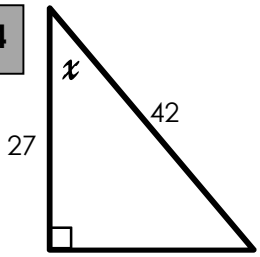
3



Find x

Use the tan ratio. $x = 18°$.

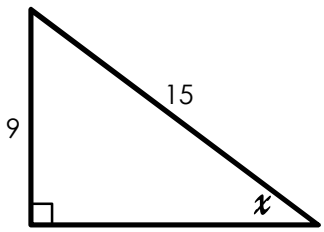
4



Find x

Use the cos ratio. $x = 50°$.

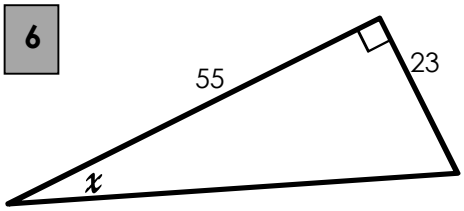
5



Find x

Use the sin ratio. $x = 37°$.

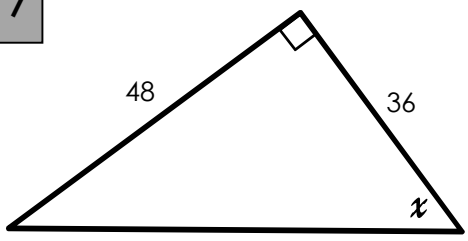
6



Find x

Use the tan ratio. $x = 23°$.

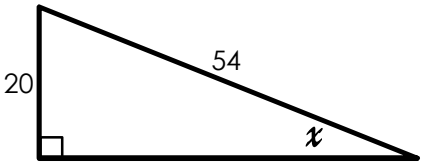
7



Find x

Use the tan ratio. $x = 53°$.

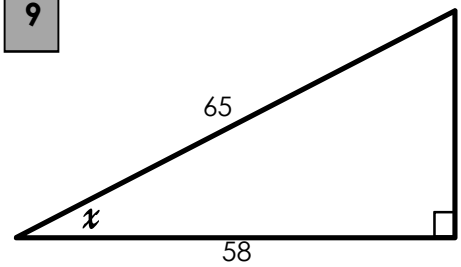
8



Find x

Use the sin ratio. $x = 22°$.

9



Find x

Use the cos ratio. $x = 27°$.

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https://allthingsmaths.co.uk/gcseworksheets.html

More GCSE resources are also available here:

https://allthingsmaths.co.uk/trigonometryratios.html