

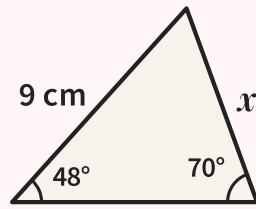
1 Find it and use it *Higher*



Have your formulae sheet in front of you. Find the formula you need, copy it from the sheet, then use it.

I do

Find the length x .
Give your answer to 1 decimal place.



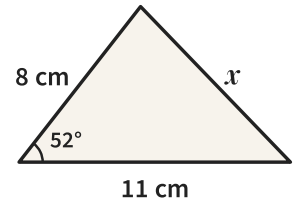
From your sheet _____

Substitute _____

Answer _____

We do

Find the length x .
Give your answer to 1 decimal place.



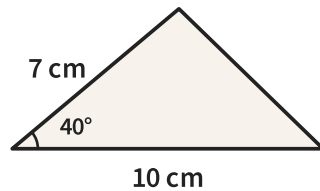
From your sheet $a^2 = b^2 + c^2 - 2bc \cos A$ _____

Substitute _____

Answer _____

1

Find the area of the triangle.
Give your answer to 1 decimal place.



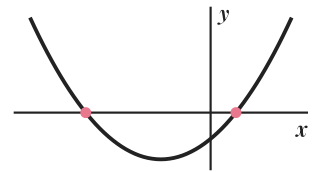
From your sheet _____

Substitute _____

Answer _____

2

Solve $2x^2 + 5x - 4 = 0$.
Give your answers to 2 decimal places.



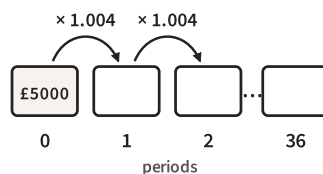
From your sheet _____

Substitute _____

Answer _____

3

£5000 is invested at 0.4% compound interest per month. Find the total after 3 years.

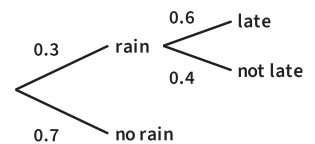


From your sheet _____

Answer _____

4

$P(\text{rain}) = 0.3$. When it rains, the probability the bus is late is 0.6. Find $P(\text{late and rain})$.

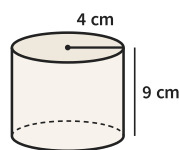


From your sheet _____

Answer _____

5

Find the volume of the cylinder.
Give your answer to 1 decimal place.

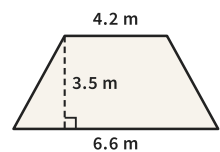


From your sheet _____

Answer _____

6

One bag of bark covers 3 m^2 . How many bags are needed to cover this flower bed?



From your sheet _____

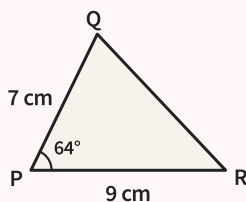
Answer _____



Find the formula on your formulae sheet. Match its letters to the lengths, angles and amounts in the question.

I do

Find QR to 1 decimal place.
Use the letters from your sheet.



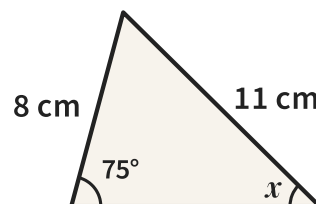
$a =$ _____ $b =$ _____ $c =$ _____ $A =$ _____

From your sheet _____

Answer _____

We do

Find angle x to 1 decimal place.



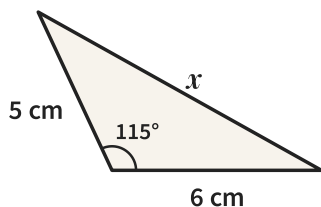
$a = 11$ $A = 75^\circ$ $b = 8$ $B = x$

From your sheet _____

Answer _____

1

Find x to 1 decimal place.



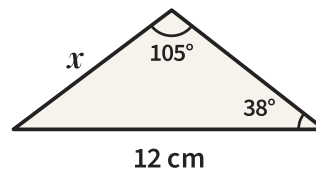
$a =$ _____ $b =$ _____ $c =$ _____ $A =$ _____

From your sheet _____

Answer _____

2

Find x to 1 decimal place.



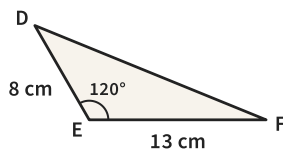
$a =$ _____ $A =$ _____ $b =$ _____ $B =$ _____

From your sheet _____

Answer _____

3

Find the area of triangle DEF to 1 decimal place.
Which angle is C ?



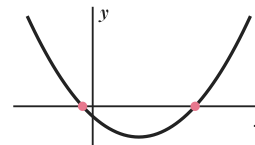
From your sheet _____

$a =$ _____ $b =$ _____ $C =$ _____

Answer _____

4

Solve $3x^2 = 7x + 2$.
Give your answers to 2 decimal places.



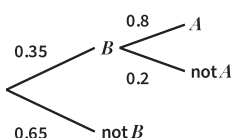
From your sheet _____

$a =$ _____ $b =$ _____ $c =$ _____

Answer _____

5

Use the tree diagram to find $P(A \text{ and } B)$.



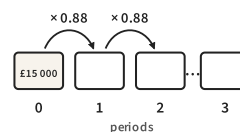
From your sheet _____

$P(A \text{ given } B) =$ _____ $P(B) =$ _____

Answer _____

6

A car worth £15 000 loses 12% of its value each year. Use the formula on your sheet to find its value after 3 years.



From your sheet _____

$P =$ _____ $r =$ _____ $n =$ _____

Answer _____

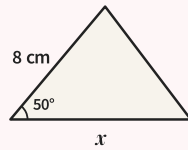
3 Turn it round *Higher*



Find the formula on your formulae sheet, substitute what you know, then rearrange to find the letter you need.

I do

The area of the triangle is 30 cm^2 . Find x to 1 decimal place.



From your sheet _____

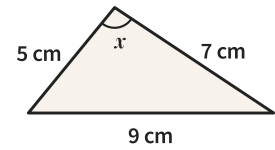
Substitute _____

Rearrange _____

Answer _____

We do

Find angle x to 1 decimal place.



From your sheet $a^2 = b^2 + c^2 - 2bc \cos A$ _____

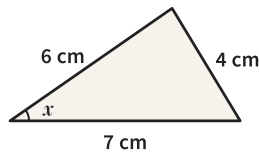
Substitute _____

Rearrange _____

Answer _____

1

Find angle x to 1 decimal place.



From your sheet _____

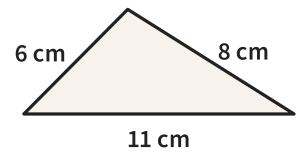
Substitute _____

Rearrange _____

Answer _____

2

Find the largest angle in the triangle to 1 decimal place.



From your sheet _____

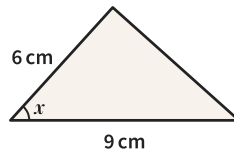
Substitute _____

Rearrange _____

Answer _____

3

The area of the triangle is 20 cm^2 . Angle x is acute. Find x to 1 decimal place.

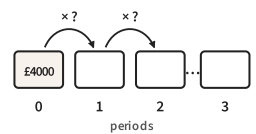


From your sheet _____

Answer _____

4

£4000 grows to £4500 in 3 years at a fixed rate of compound interest per year. Find the rate to 1 decimal place.

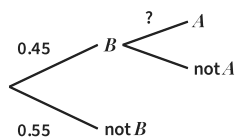


From your sheet _____

Answer _____

5

$P(A \text{ and } B) = 0.18$ and $P(B) = 0.45$. Find $P(A \text{ given } B)$.

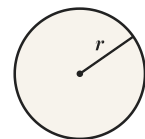


From your sheet _____

Answer _____

6

A circle has an area of 200 cm^2 . Find its circumference to 1 decimal place.



From your sheet _____

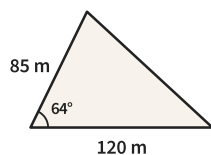
Answer _____



Use your formulae sheet for every question. Some questions need two formulae from it.

1

A field is a triangle. Find the length of fence needed to go all the way round it, to the nearest metre.

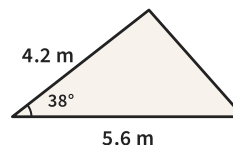


From your sheet _____

Answer _____

2

A sail is a triangle. Two of its edges are 4.2 m and 5.6 m with an angle of 38° between them. Find the area of the sail.

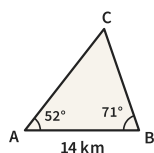


From your sheet _____

Answer _____

3

Find BC to 1 decimal place.

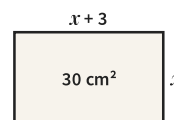


From your sheet _____

Answer _____

4

The rectangle has an area of 30 cm^2 . Find x to 2 decimal places.

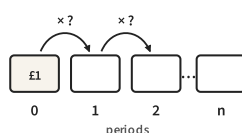


From your sheet _____

Answer _____

5

Which account pays more over 5 years: 3.1% compound interest per year or 0.25% compound interest per month?



From your sheet _____

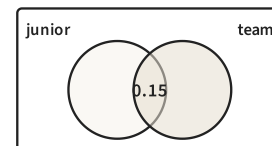
Answer _____

6

$P(\text{junior and team}) = 0.15$

$P(\text{team}) = 0.24$

Find $P(\text{junior given team})$.



From your sheet _____

Answer _____

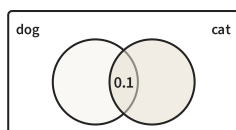
7

A student is picked at random.

$P(\text{has a dog}) = 0.35$, $P(\text{has a cat}) = 0.3$

and $P(\text{has a dog and a cat}) = 0.1$.

Find $P(\text{has a dog or a cat})$.

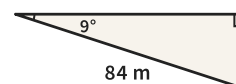


From your sheet _____

Answer _____

8

A zip wire is 84 m long and slopes at 9° to the horizontal. Find its vertical drop to 1 decimal place.



From your sheet _____

Answer _____