Year 6 Home Learning – Maths Answers Week 1

Arithmetic Practice – Set a 5 minute timer to complete the questions. If you have forgotten a method, let me know and I will create a short video to help you remember!

A

1. 18,759 + 1023 = 19,782
2. 563,300 – 13,000 = 550,300
3. 28.9 x 100 = 2,890
4. 364 x 23 = 8,372
5. 3036 ÷ 3 = 1,012

B

1. 204,679 – 25,376 = 179,303
2. £20.45 + £2.87 = £23.32
3. 4520 ÷ 100 = 45.2
4. 54.3 + 2.98 = 57.28
5. 756 ÷ 14 = 54

C

1. £109.66 - £99.50 = £10.16
2. 2154 x 12 = 25,848
3. 1.56 x 1000 = 1,560
4. 943 ÷ 23 = 41
5. $\frac{1}{2} + \frac{3}{4} = 1\frac{1}{4}$

D

1. $\frac{14}{15} - \frac{1}{3} = \frac{9}{15} = \frac{3}{5}$
2. 563,300 + 13,000 = 576,300
3. 1.287 + 13.09 = 14.377
4. 9283 x 23 = 213,509
5. 2952 ÷ 18 = 164

E

1. 18,759 + 1023 = 19,782
2. $\frac{6}{8} + \frac{1}{4} + \frac{1}{16} = \frac{17}{16} = 1\frac{1}{16}$
3. 0.605 x 100 = 60.5
4. £7.50 x 5 = £37.50
5. $\frac{1}{4}$ of 672 = 168

Bonus: How many ways are there of finding 5% of a number?

Here is a problem to get you thinking:

5% of 500 = 25

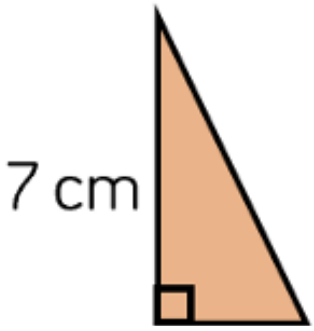
1 – **Find 10%** and halve it: 500 **÷ 10** = 50 50 ÷ 2 = 25

2 – **Find 50%** and divide by 10: 500 **÷ 2** = 250 250 ÷ 10 = 25

3 – **Find 1%** and multiply by 5: 500 **÷ 100** = 5 5 x 5 = 25

Did you think of a different way?

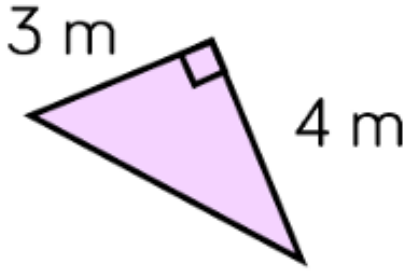
Lesson 1



area = (length x width) ÷ 2

(7cm x 2cm) ÷ 2 = $7cm^2$

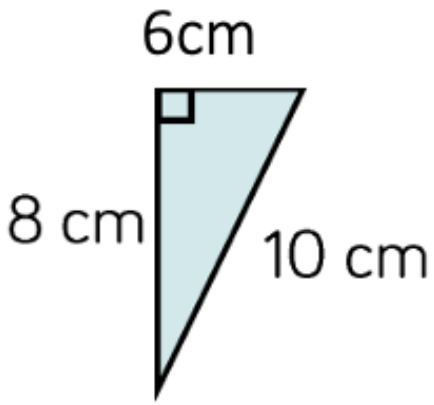
$14cm^2 \div 2 = 7cm^2$



area = (length x width) ÷ 2

(3m x 4m) ÷ 2 = $6m^2$

$12m^2 \div 2 = 6m^2$



area = (length x width) ÷ 2

(6cm x 8cm) ÷ 2 = $24cm^2$

$48cm^2 \div 2 = 24cm^2$

We need to use 8cm as this is the **perpendicular height** of the triangle.

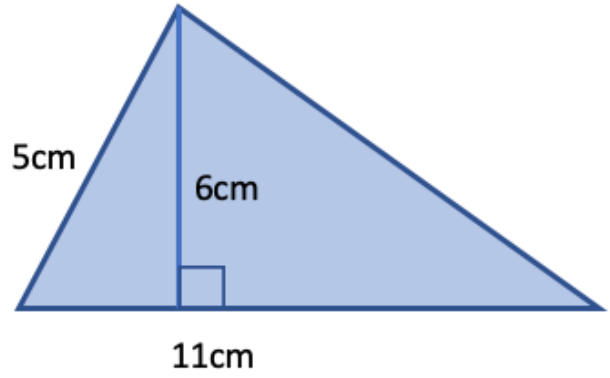
Does it matter which measurements you know? Yes! It must be the two measurements on the perpendicular sides. The diagonal side cannot be used to find the area.

How to convert to millimetres:

a) cm -> mm = multiply by 10
b) m -> mm = multiply by 1000

7cm = 70mm 6m = 6000mm 24cm = 240mm

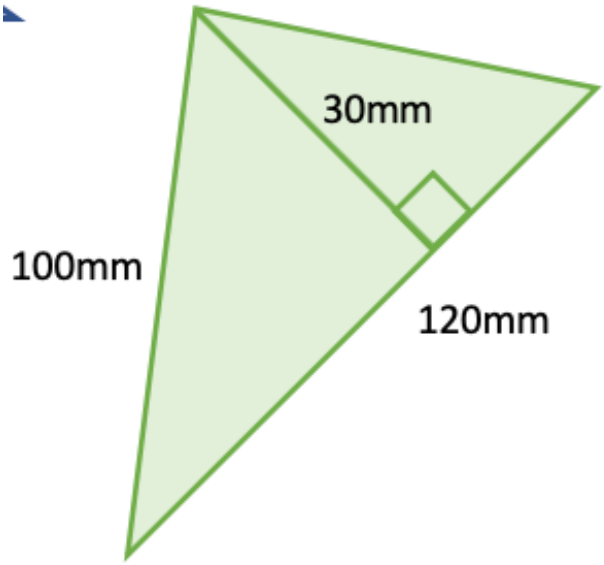
Lesson 2



area = (base x height) ÷ 2

(11cm x 6cm) ÷ 2 = $33cm^2$

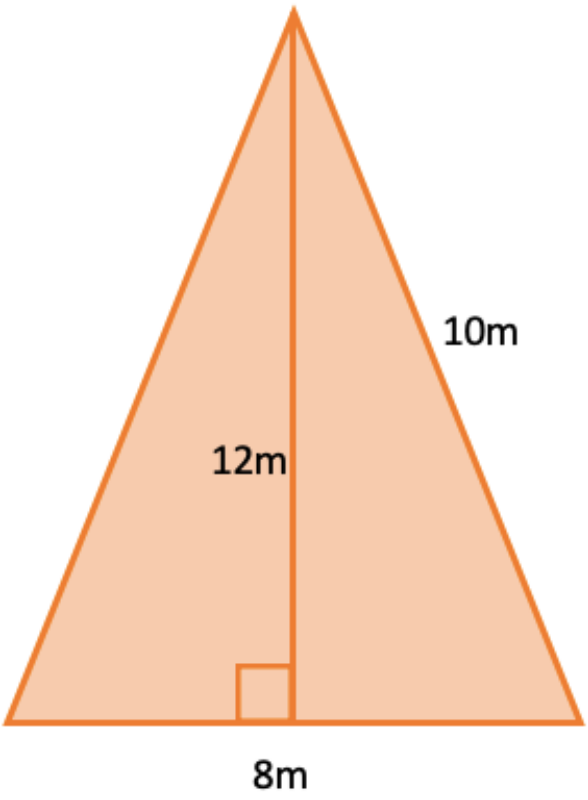
$66cm^2 \div 2 = 33cm^2$



area = (base x height) ÷ 2

(120mm x 30mm) ÷ 2 = $1800mm^2$

$3600mm^2 \div 2 = 1800mm^2$



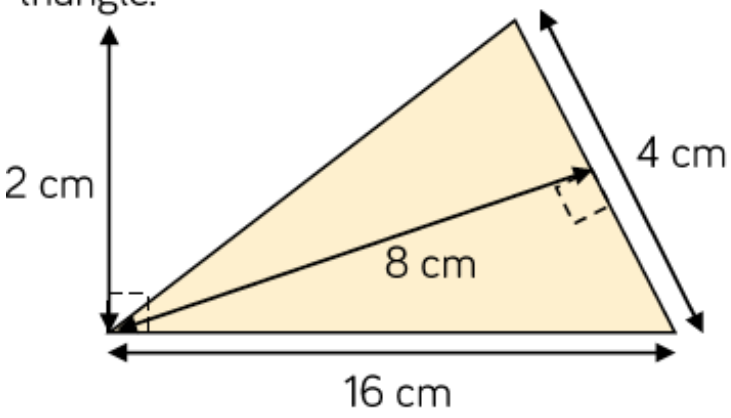
area = (base x height) ÷ 2

(8m x 12m) ÷ 2 = $48m^2$

$96m^2 \div 2 = 48m^2$

Lesson 2 - Challenge

Class 6 are calculating the area of this triangle.



Here are some of their methods.

$4 \times 8 \times 16 \times 2 \div 2$	$4 \times 8 \div 2$
$16 \times 2 \div 2$	$16 \times 4 \div 2$
$16 \times 8 \div 2$	8×1

There are two equivalent calculations here:

$4 \times 8 \div 2 = 16 \times 2 \div 2$

There are two ways to find the base and perpendicular height of a triangle which you can see here. As long as the two measurements meet a a right angle, they can be used to find the area! They have marked the two right angles to give you a clue where the two perpendicular pair of measurements are.

All of the other methods use incorrect measurements or too many or not enough calculations!