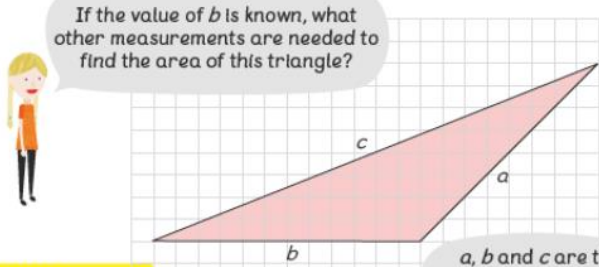


# Finding the Area of Triangles

**Lesson 5**

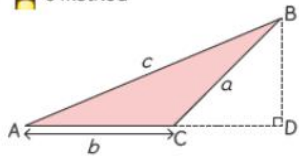
**In Focus**



**Let's Learn**

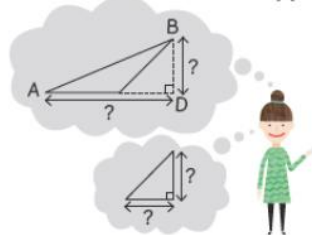
*a, b and c are the lengths of the sides of the triangle.*

**1** 's method

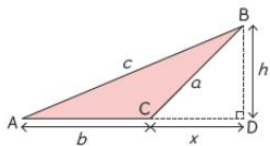


Let's label the vertices with A opposite side a, etc.

- Area of triangle ADB =
- Area of triangle CDB =
- Area of triangle ACB = -

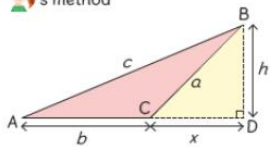


thinks that she needs the values of  $x$  and  $h$ .



What do you think?

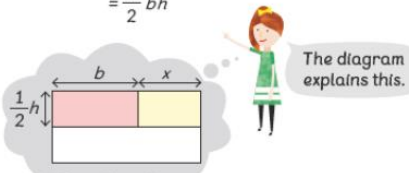
**2** 's method



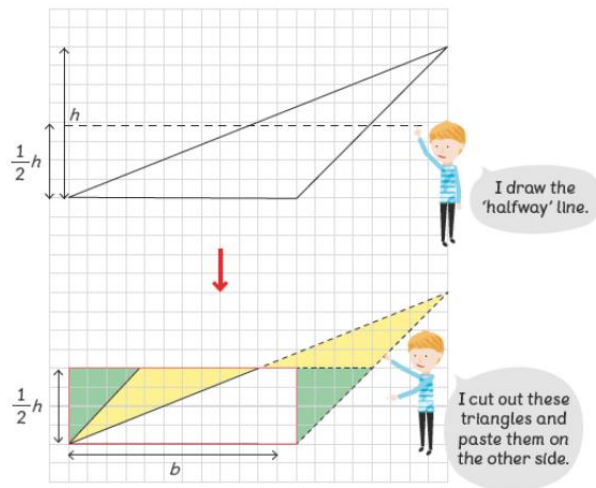
$$\begin{aligned} \text{Area of triangle ADB} &= \frac{1}{2}(b+x)h \\ &= \frac{1}{2}bh + \frac{1}{2}xh \end{aligned}$$


I need the value of  $h$ .

$$\begin{aligned} \text{Area of triangle CDB} &= \frac{1}{2}xh \\ \text{Area of triangle ACB} &= \text{area of triangle ADB} - \text{area of triangle CDB} \\ &= \left(\frac{1}{2}bh + \frac{1}{2}xh\right) - \frac{1}{2}xh \\ &= \frac{1}{2}bh \end{aligned}$$



3  's method



 Is it true that the area of the triangle is the same as the rectangle with lengths of  $\frac{1}{2}h$  and  $b$ ?

 needs the value of  $h$ .

**Guided Practice**

Make the necessary measurements and find the area of each triangle.

1   Look for right-angled triangles.  
Imagine the rectangle that has twice the area of the triangle.

2 

3   Imagine the rectangle that has the same area as the triangle.

**English 1hr** –OK so have a look at the attachment. This is about active/passive and blog posts. Again, fairly informal. Have a go at the writing challenge over the next couple of days. If you don't like the choices you have been given, by all means make up your own.

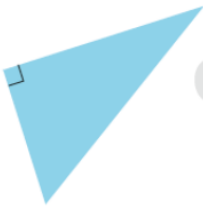
**Topic 30 Mins** – OK so hopefully you enjoyed the last couple of days of art. The next two days of the topic is the same but in a different style of art. This time it is Georgia O'Keeffe. Again, look at the PowerPoint attached and note this style is far more abstract rather than the realism of Mee. Your challenge is to make a choice of plant or landscape and have a go in the style of O'Keeffe. Again, today and tomorrow for this, so take your time!

## Maths Answers

### Guided Practice

Make the necessary measurements and find the area of each triangle.

1



$$\frac{1}{2} \times 5 \times 3 = 7.5 \text{ cm}^2$$

Look for right-angled triangles.

Imagine the rectangle that has twice the area of the triangle.



2



$$\frac{1}{2} \times 4 \times 6 = 12 \text{ cm}^2$$


3



$$\frac{1}{2} \times 8 \times 2 = 8 \text{ cm}^2$$

Imagine the rectangle that has the same area as the triangle.



Make the necessary measurements and use 's method to find the area of each shaded triangle.

(a)



$$2.5 \times 7.3 = 18.25$$

$$2.5 \times 1.3 = 3.25$$

$$18.25 - 3.25 = 15$$

$$15 \text{ cm}^2$$

(b)




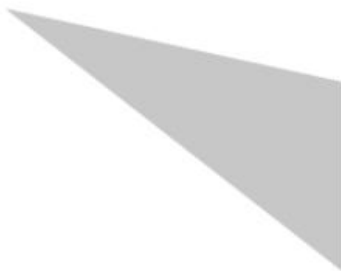
$$3.5 \times 8.9 = 31.15$$

$$3.5 \times 1.9 = 6.65$$

$$31.15 - 6.65 = 24.50$$

$$24.5 \text{ cm}^2$$

Make the necessary measurements and use 's method to find the area of the triangle below.



$$2 \times 7 = 14$$

$$14 \text{ cm}^2$$