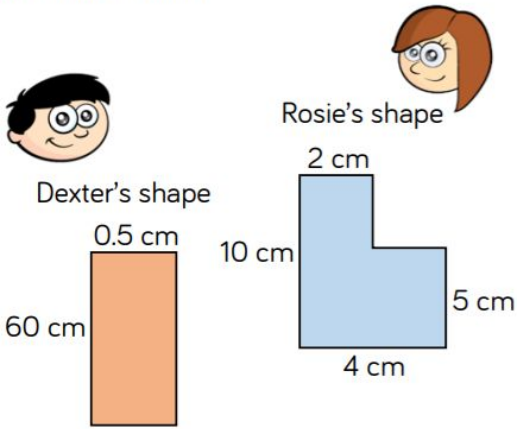
Rosie and Dexter are drawing shapes with an area of $30cm^2$



Who is correct?

Three children are given the same rectilinear shape to draw.

Amir says, "The smallest length is 2 cm."
Alex says, "The area is less than 30 cm^2."
Annie says, "The perimeter is 22 cm."

What could the shape be?
How many possibilities can you find?

Always, Sometimes, Never?

If the area of a rectangle is odd then all of the lengths are odd.

Tuesday - Yr 5&6 Maths - All

Use the words to complete the sentences.

perimeter | cm^2 | cm | m

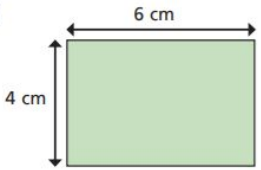
area | m^2 | inside | around

_____ is the amount of space _____ a two-dimensional shape. It can be measured in units such as _____ or _____

_____ is the distance _____ a two-dimensional shape. It can be measured in units such as _____ or _____

Work out the areas and perimeters of the shapes.

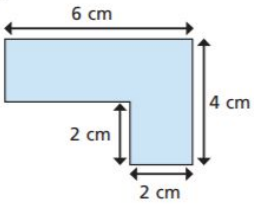
a)



perimeter = ☐ cm

area = ☐ cm^2

b)

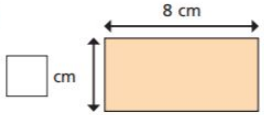


perimeter = ☐ cm

area = ☐ cm^2

Work out the missing values.

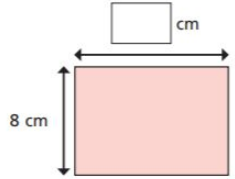
a)



area = 32 cm^2

perimeter = ☐ cm

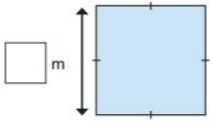
b)



area = ☐ cm^2

perimeter = 40 cm

c)

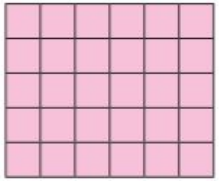


area = ☐ m^2

perimeter = 36 m

Work out the areas and perimeters of the shapes.

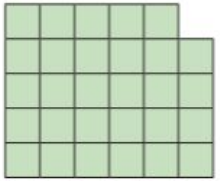
Shape A



area = ☐ cm^2

perimeter = ☐ cm

Shape B



area = ☐ cm^2

perimeter = ☐ cm

Tuesday - Yr 5&6 Maths - ** and ***

A farmer has 60 metres of perimeter fencing.

For every 1 m² he can keep 1 chicken.

How can he arrange his fence so that the enclosed area gives him the greatest area?

Tommy has a 8 cm × 2 cm rectangle. He increases the length and width by 1 cm.

Length	Width	Area
8	2	
9	3	

He repeats with a 4 cm × 6 cm rectangle.

Length	Width	Area
4	6	

What do you notice happens to the areas?

Can you find any other examples that follow this pattern?

Are there any examples that do not follow the pattern?

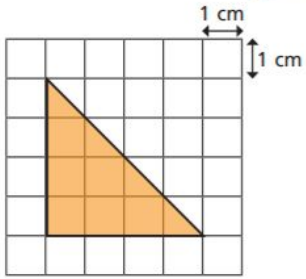
Wednesday - Yr 5&6 Maths - All

Complete the sentences to describe the triangle.

The triangle has ☐ full squares.

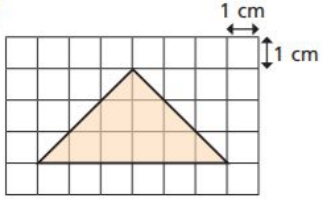
The triangle has ☐ half squares.

The area of the triangle is ☐ cm²



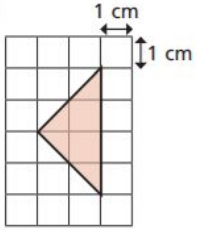
Count squares to work out the area of each triangle.

a)



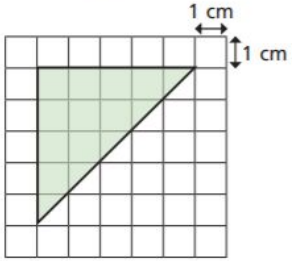
area = ☐ cm²

b)



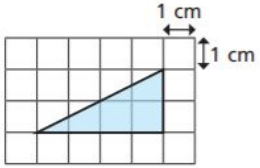
area = ☐ cm²

c)



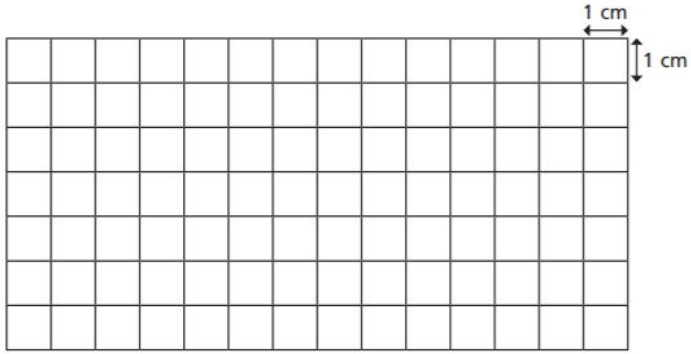
area = ☐ cm²

d)



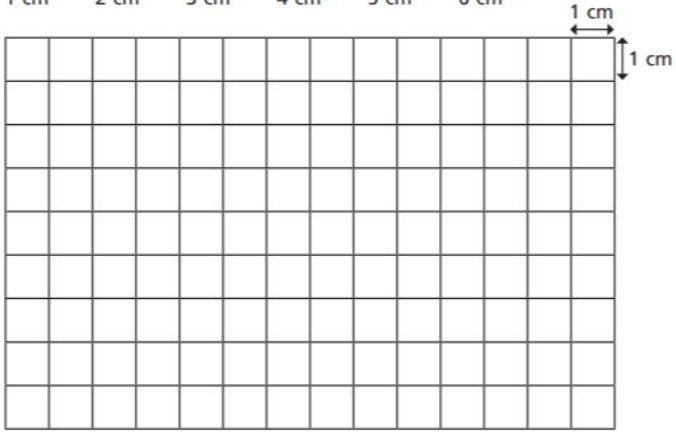
area = ☐ cm²

Draw a triangle that has an area of approximately 15 cm²

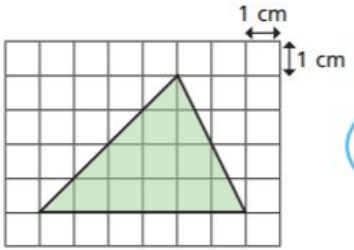


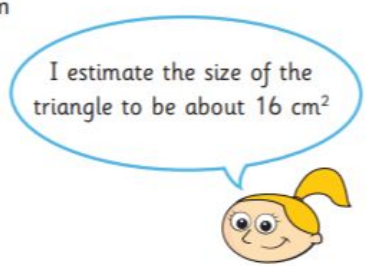
Draw triangles with these areas.

1 cm² 2 cm² 3 cm² 4 cm² 5 cm² 6 cm²



Wednesday - Yr 5 Maths - ** and ***





Do you agree with Eva's estimate? _____

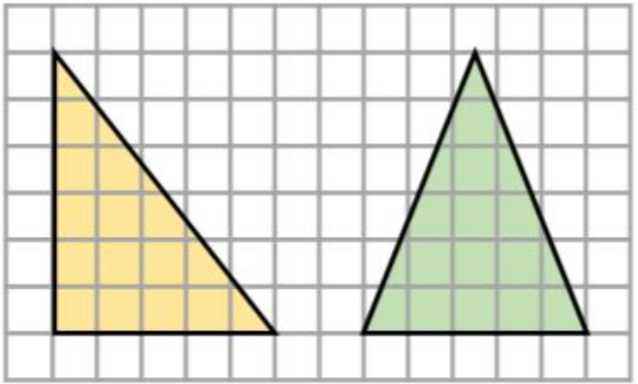
Talk about it with a partner.

Mo says the area of this triangle is 15cm²

Is Mo correct? If not, explain his mistake.

What is the same about these two triangles?

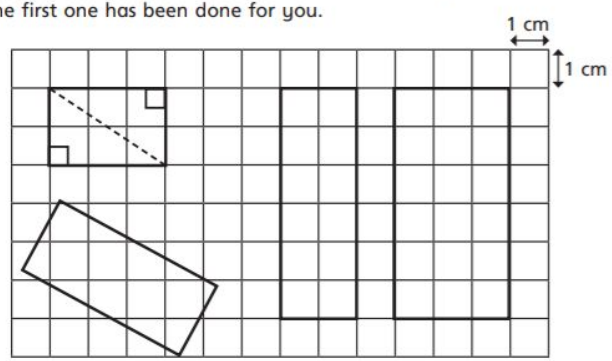
What is different?



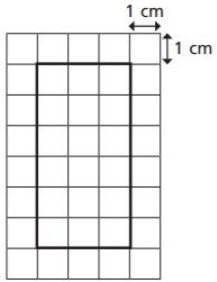
Can you create a different right angled triangle with the same area?

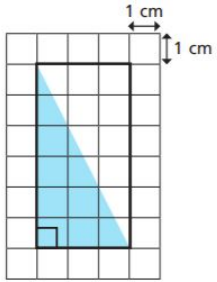
Thursday - Yr 5&6 Maths - All

Divide each rectangle into two right-angled triangles.
The first one has been done for you.



a) Calculate the area of the rectangle and the triangle.

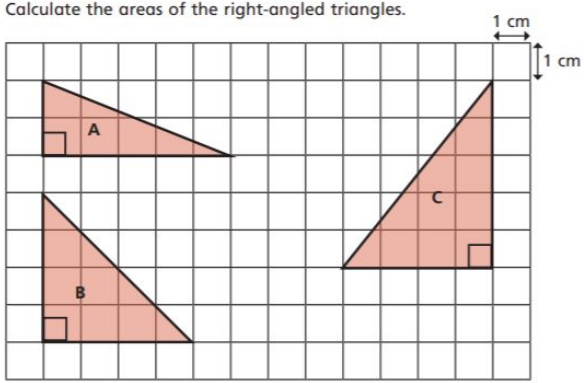




area = ☐ cm² area = ☐ cm²

b) Explain how you worked out the area of the right-angled triangle.

Calculate the areas of the right-angled triangles.

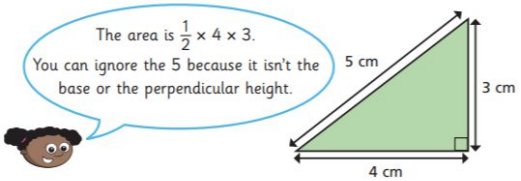


triangle A = ☐ cm² triangle C = ☐ cm²

triangle B = ☐ cm²

Whitney is calculating the area of the triangle using the formula.

Area = $\frac{1}{2}$ × base × perpendicular height



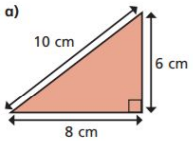
Do you agree with Whitney? _____

Talk about it with a partner.

Thursday - Yr 5&6 Maths - ** and ***

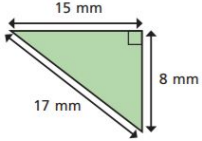
Insert the correct numbers into the formula to calculate the area of the triangle.

a)



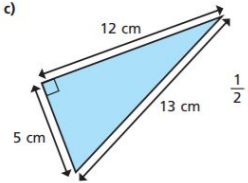
$\frac{1}{2} \times \square \times \square = \square$ cm²

b)



$\frac{1}{2} \times \square \times \square = \square$ mm²

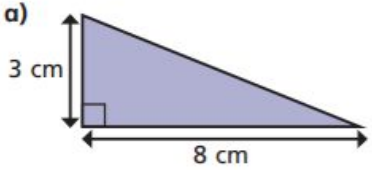
c)



$\frac{1}{2} \times \square \times \square = \square$ cm²

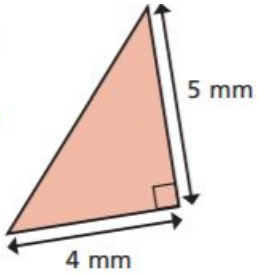
Calculate the areas of the triangles.

a)



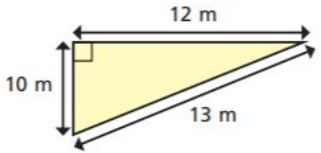
area = ☐ cm²

b)



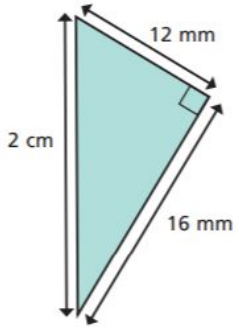
area = ☐ mm²

c)



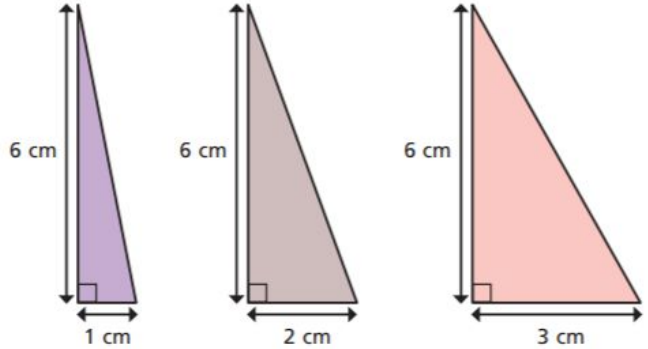
area = ☐ m²

d)



area = ☐ mm²

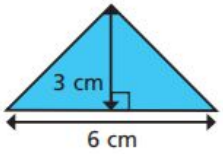
The width of the right-angled triangles is increasing by 1 cm.



Investigate the pattern for the areas.

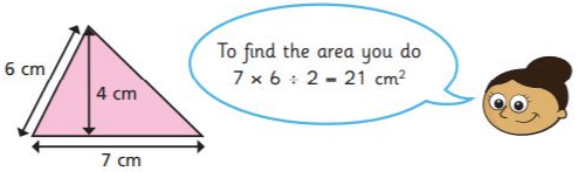
Friday - Yr 5&6 Maths - All

Calculate the area of the triangle.



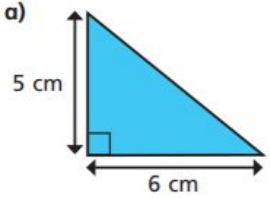
area = ☐ cm²

What mistake has Dora made?



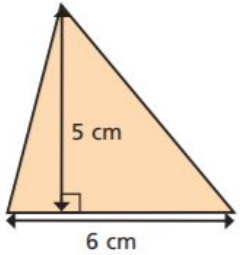
Calculate the area of the triangles.

a)



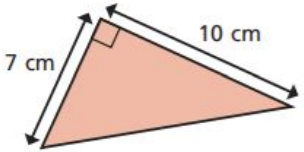
area = ☐ cm²

c)

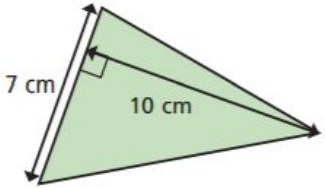


area = ☐ cm²

b)

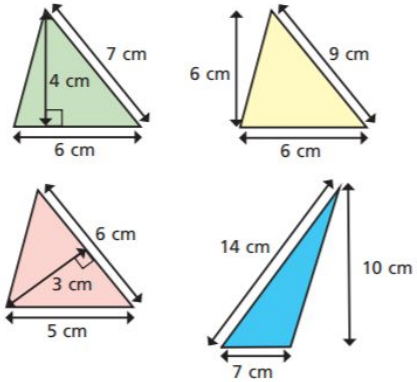


d)



Label the base of each triangle b.

Label the perpendicular height h.



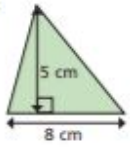
Are the statements always, sometimes or never true?

The side at the bottom of a triangle is the base.	The perpendicular height is equal to the vertical height.

Friday - Yr 5&6 Maths - **I

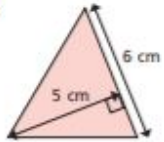
Calculate the area of the triangles.

a)



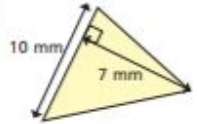
area = ☐ cm²

b)



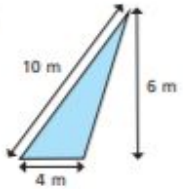
area = ☐ cm²

c)



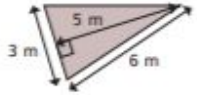
area = ☐ mm²

d)



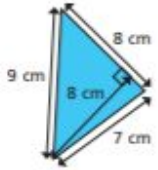
area = ☐ m²

e)



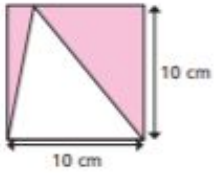
area = ☐ m²

f)



area = ☐ cm²

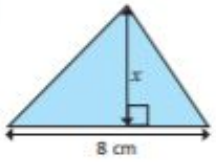
Find the area of the shaded region.



area = ☐ cm²

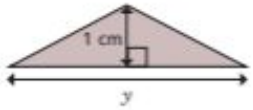
The area of each triangle is 12 cm². Find the missing lengths.

a)



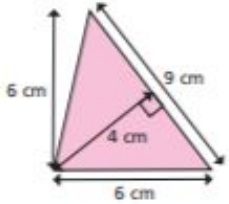
x = ☐ cm

b)



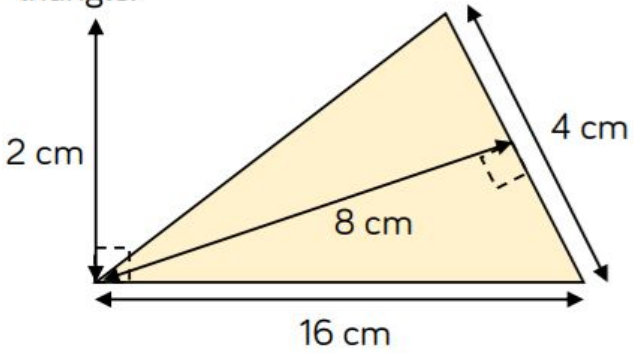
y = ☐ cm

Show two ways you can work out the area of the triangle.



Friday - Yr 5&6 Maths - ***

Class 6 are calculating the area of this triangle.

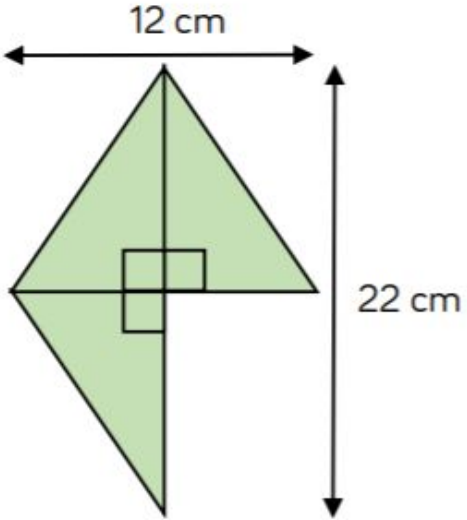


Here are some of their methods.

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

Tick the correct methods.

The shape is made of three identical triangles.



What is the area of the shape?