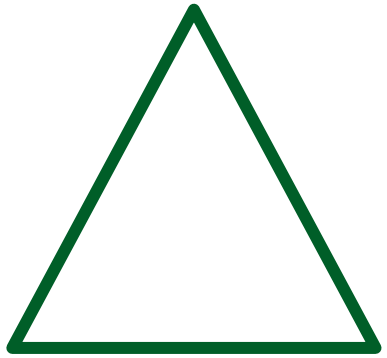
Mathematics

Working out missing lengths when given area

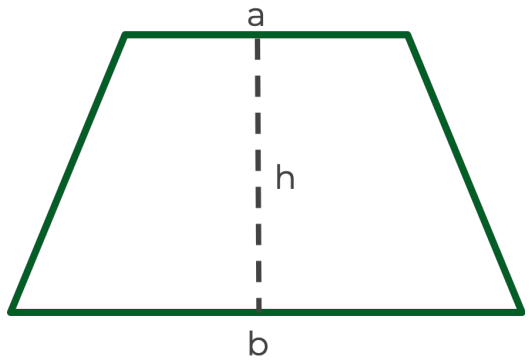
Mr Maseko

Try this

1) Give possible base and height lengths for a triangle with an area of 24cm^2



2) Give possible a, b and h lengths for a trapezium with an area of 24cm^2



3) Give possible side lengths for a rectangle with an area of 24cm^2

What do you notice?

Connect

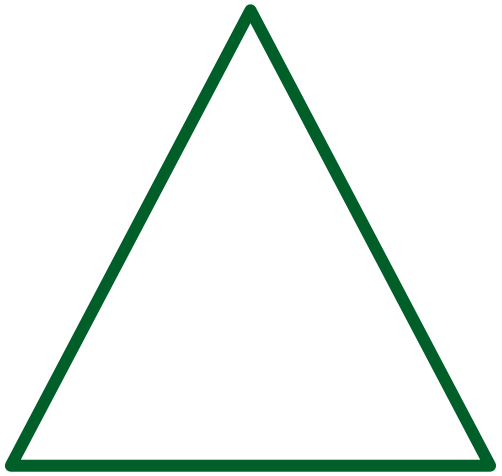
Working out lengths when given area and 1 other length

This rectangle has an area of 18cm^2 and a base of 6cm.

What is the height of the rectangle?

Connect

Working out lengths when given area and 1 other length

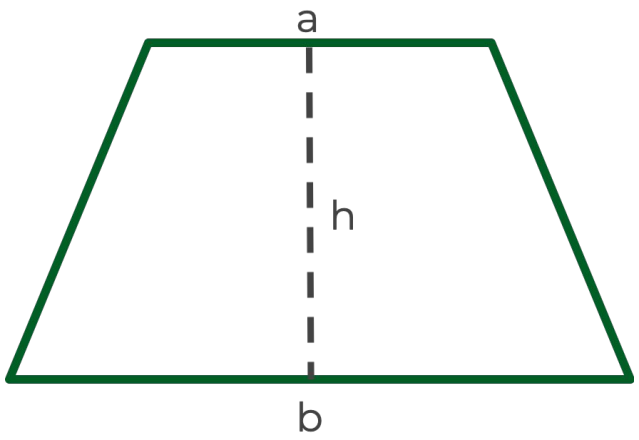


This triangle has an area of 18cm^2 and a base of 4cm.

What is the height of the triangle?

Connect

Working out lengths when given area and 1 other length

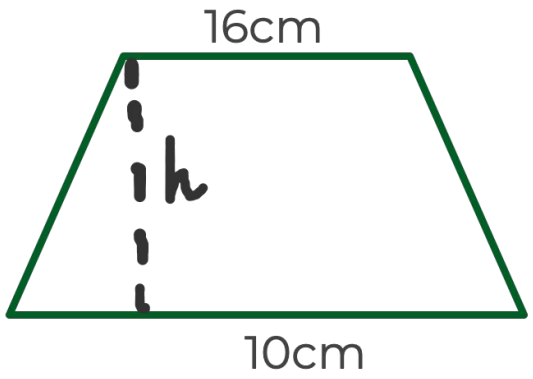


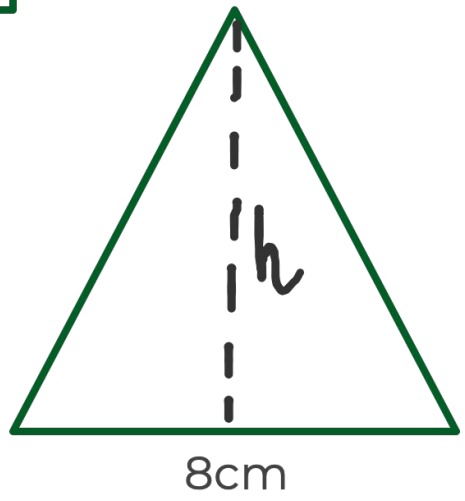
The area of this trapezium is 30cm^2.

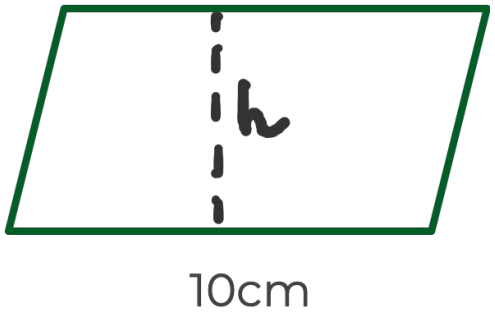
Given that a = 7cm and b = 5cm, work out h.

Independent task

These 4 shapes all have the same area. Work out the heights of the triangle, parallelogram and trapezium.



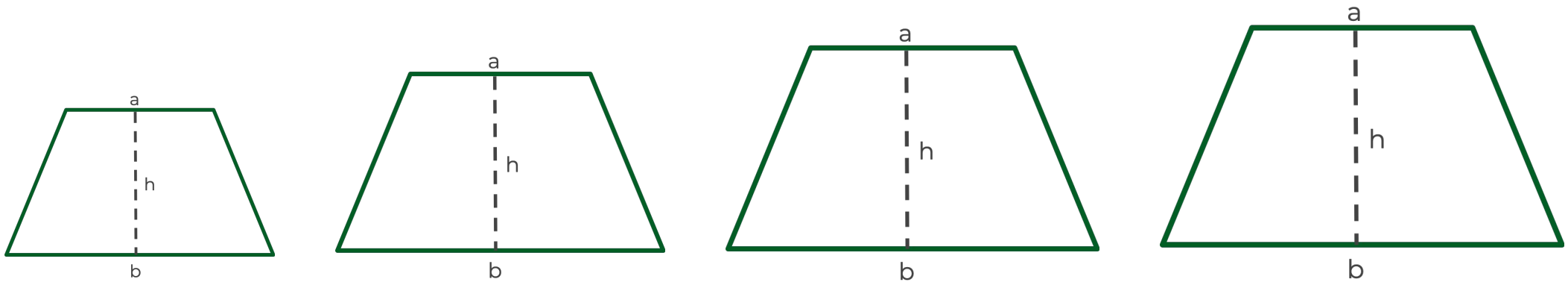




Explore

Draw 4 trapezium with consecutive areas.

What do you notice about the lengths a, b and h?



What will be the lengths of a, b and h in the 20th trapezium of your sequence?