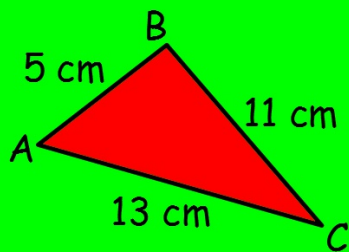


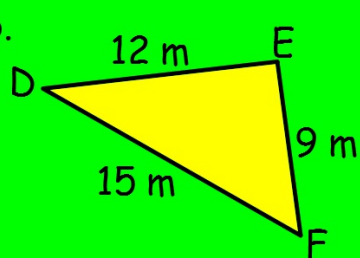
Starter

1. Which of the following are right-angled triangles?

a.



b.



2. Calculate the area of a quarter circle with a radius of 3.7m.

3. Solve the following:

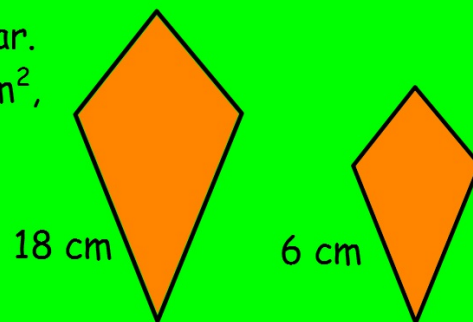
a. $6(7r + 2) = 3(5r - 1)$

b. $7 - 2(3e + 2) - 4(5e - 1) = 3$

Starter

1. Find the equation of the line passing through
 - a. $(-2, 5)$ and $(0, 9)$
 - b. $(0, -3)$ and $(3, -8)$

2. These shapes are mathematically similar.
If the area of the larger shape is 81 cm^2 ,
find the area of the smaller shape.



3. Find the area of a sector of a circle with a radius of 2.8 cm and an angle of 64° at its centre.

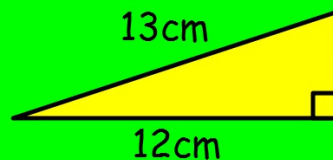
Starter

1. Multiply out the following and simplify:

a. $6 - 2r(3r - 5) + 3r(5r - 2)$

b. $5 + 3(2e^2 - 5) - (5e^2 - 2)$

2. Find the length of the missing side in the triangle shown.



3. Find the equation of the straight line which passes through the points (4, -2) and (0, 5).

4. a. Find the area of a sector with a radius of 4.9 cm and an angle of 245° .

b. Find the arc length of the same sector.

Starter

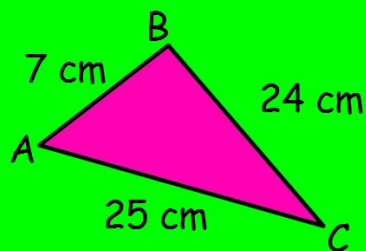
1. Find the gradient and y-intercept of each line below:

a. $5y = 5x + 15$

b. $6y + 4x = 3$

c. $10 - x + 2y = 0$

2. Is the following triangle right angled at B?



3. Calculate the perimeter of a semi circle with a radius of 6 mm.

Starter

- Find the coordinates of the y-intercept of the lines:
 - $y = 6x - 7$
 - $4y - 8x = 5$
 - $8y - 4x + 12 = 0$
- Dave and Jim work in a bar. In total they collected £4320 in tips last year. They shared this in the ratio of 1:3.
 - Calculate how much money Jim receives.
 - Jim invests his share in an account with an interest rate of 5% p.a. How much interest would he gain after 4 years?
- These shapes are mathematically similar.
If the area of the smaller shape is 28 cm^2 ,
find the area of the larger shape.

