

15. Solve the equation

$$3x^2 - 5x - 4 = 0$$

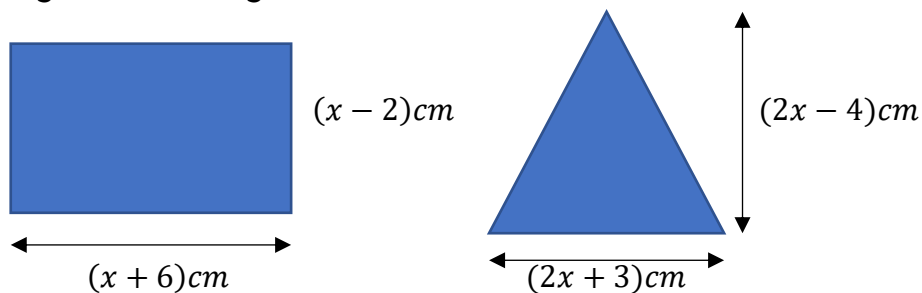
Round your answer correct to one decimal place.

16. Including a 20% reduction, a pair of trainers costs £124.
What is the full price of the trainers?

17. Expand the brackets and simplify

$$(x - 3)(x + 4)^2$$

18. A rectangle and a triangle are shown below.



- a. Show that the area of the triangle is given by

$$2x^2 - x - 6 \text{ cm}^2$$

- b. If the area of the rectangle and the area of the triangle are equal,
show clearly that

$$x^2 - 5x + 6 = 0$$

- c. Hence, calculate the area of each shape.

19. Solve

$$\frac{x+3}{2} - 2 = \frac{2x+3}{3}$$

20. A colony of butterflies is expected to fall at a rate of 3% per year for the next 5 years.

If the population of butterflies is currently 14 500, what will the expected population be in 5 years time? Round your answer to 3 significant figures.

21. The straight line AB passes through the point $(-2,3)$ and is parallel to the line with equation $4x + 3y - 12 = 0$.

Find the equation of the line AB.