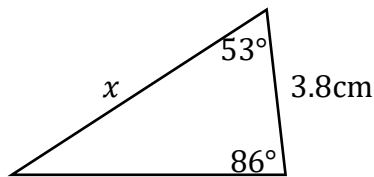


15. Find the length of the side marked x in this triangle.



16. The weight of an asteroid orbiting Venus is 4.38×10^{22} kg.
The weight of an asteroid orbiting Mars is 1.23×10^{13} times lighter.

Work out the weight of the asteroid orbiting Mars.
Round your answer to 3 significant figures.

17. Solve $2x^2 + 6x - 5 = 0$.

Round your answers correct to one decimal place.

18. Express

$$\frac{4}{p-3} + \frac{2}{2p-5}$$

as a single fraction in its simplest form.

19. The average attendance at football matches in 2019 was 14 320.

This was a drop of 16% from the previous year.

Work out the average attendance in 2018.

20. Shown below is the price of petrol (in pence per litre) in 6 different towns.

114 115 118 120 111 112

a) Calculate the mean and standard deviation of these prices.

b) In 6 rural areas, another 6 petrol station prices were also recorded.

The mean was recorded as 127p per litre and the standard deviation was 2.11

Make 2 valid comments about the prices in the towns and the prices in the rural areas.

21. In the diagram opposite:

- Name 2 right angles
- Name a chord
- If angle $BDA = 71$, calculate angle ODA .
- Calculate angle AOC .

