Day 149 **A Tier 10-a-day**

1 The area of a circle is 36π cm^2.
(a) Work out the radius of the circle.
(b) Work out the circumference. Give your answer in terms of π.

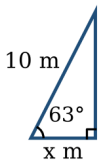
2 A gym charges a joining fee of £40 and then £18 each month.
(a) Write a formula for the total cost, £C, after n months.
(b) Leo pays £292 in total. Work out the number of months.

3 The stem and leaf diagram shows the ages of 11 people.
Key: 2 | 8 represents 28 years
(a) Work out the median age.
(b) Work out the interquartile range.

Stem	Leaf
2	8
3	0 3 5 6 7 8
4	1
5	1 5 9

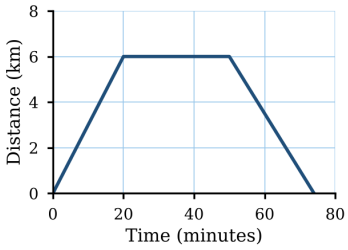
4 A shop sells 5 different shirts, 5 different pairs of trousers and 2 different hats.
How many different outfits, made of one shirt, one pair of trousers and one hat, are possible?

5 Work out the value of x. (Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.



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6 The distance-time graph shows a journey made by a cyclist.
(a) For how many minutes did the cyclist stop?
(b) Work out the speed during the first part of the journey. Give your answer in km/h.



7 (a) A flight takes off at 1145. The journey takes 2 hours 13 minutes. Work out the time it ends.
(b) Change 210 minutes into hours. Give your answer as a decimal.

8 Solve $\frac{5}{(x-1)} + \frac{6}{(x+1)} = 1$

9 By rounding each number to 1 significant figure, estimate the value of

$$\frac{65.5 + 5.8}{0.99}$$

10 Here are the first five terms of a quadratic sequence.
5, 6, 9, 14, 21
(a) Find an expression for the nth term.
(b) Work out the 10th term.