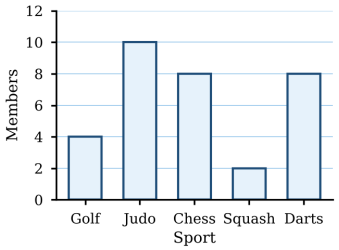
Day 292 **B Tier 10-a-day**

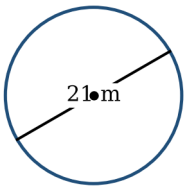
1 The bar chart shows some information.
(a) Write down the mode.
(b) What fraction of the total is Judo? Give your answer in its simplest form.



2 Expand and simplify $6(x - 2) + 2(x + 2)$

3 (a) Uma scores 9 out of 20 in a test. Write this as a percentage.
(b) Write 90p as a percentage of £10.

4 The diagram shows a circle with diameter 21 m. (Calculator)
Work out the area of the circle.
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



5 Solve $4(x - 2) = 2(x + 1)$

Day 292	B Tier 10-a-day
6 In a sale, the price of a sofa is reduced by 40%. (Calculator) Two weeks later it is reduced by a further 20% of the new price. The final price is £36. Work out the original price of the sofa.	
7 £4,000 is invested for 3 years at 10% compound interest per year. (Calculator) Work out the total interest earned.	
8 In triangle PQR, PQ = 8 cm, QR = 5 cm and angle PQR = 52°. (Calculator) Work out the area of the triangle. Give your answer correct to 1 decimal place.	
9 A fuel tank is $\frac{1}{5}$ full. 24 litres of fuel are added. The fuel tank is now $\frac{1}{2}$ full. Work out the capacity of the fuel tank.	
10 Here is an iteration formula. $x_{n+1} = 1 + \frac{25}{x_n}$ $x_0 = 5$ (a) Work out x_1 (b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)	