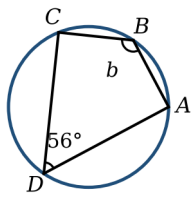
Day 219 **B Tier 10-a-day**

1 A, B, C and D are points on a circle.
Angle ADC = 56°.
Work out the size of angle ABC, marked b.
Give a reason for your answer.
The diagram is not drawn accurately.

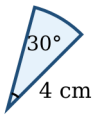


2 Work out
(a) $41 - 40 \div 8 + 2 \times 4$
(b) $7^2 - (10 - 4) \times 3$

3 Solve $\frac{5x - 19}{4} = 4$

4 Zain earns £18 per hour for the first 30 hours worked each week.
Any extra hours are paid at time and a half.
Last week Zain worked 38 hours.
Work out Zain's total pay for last week.

5 Work out $2\frac{3}{4} + 3\frac{2}{3}$
Give your answer as a mixed number.

Day 219	B Tier 10-a-day
6 Tom invests £1,000 for 2 years at 4% simple interest per year. Work out the total interest he earns.	
7 The equation $x^3 - 2x = 11$ has a solution between 2 and 3. (Calculator) Use trial and improvement to find this solution. Give your answer correct to 1 decimal place.	
8 Nina invests £4000 for 3 years. The account pays 4% simple interest per year. (a) Work out the interest earned each year. (b) Work out the total amount in the account after 3 years.	
9 The diagram shows a sector of a circle with radius 4 cm and angle 30°. (Calculator) Work out the length of the arc of the sector. Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 	
10 Expand and simplify $6(x - 2) + 6(x - 3)$	