

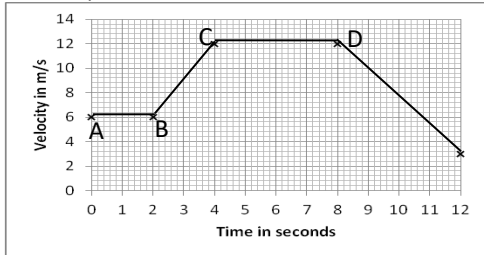
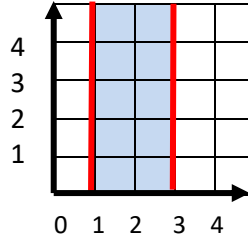
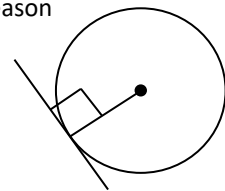
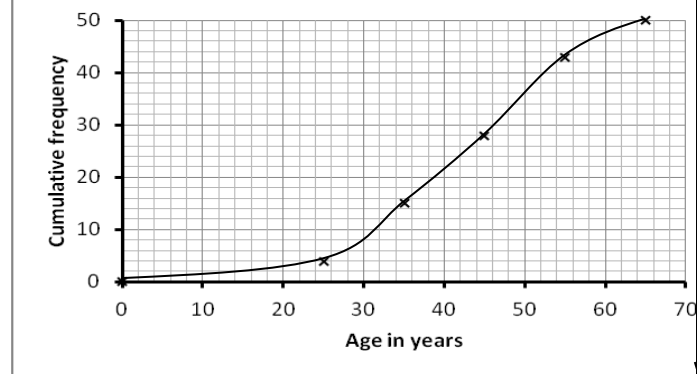




**Maths Key Skills**

**Stage 10: Skill Check 12**

Name: .....

Date: .....

Class/Group: .....

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability		
1. Write the answer in standard form $(5 \times 10^{-3}) \times (3 \times 10^{-2})$	10:1	11. Interpret the line CD 	10:13	21. A picture 30cm high covers 360cm <sup>2</sup> . A similar picture is 15cm high. What is its area?	10:26	
2. Estimate to 1dp the value of : $\sqrt[3]{100}$	10:2	12. What inequality is represented here? 	10:14	22. The marked angle = 90° Give the reason 	10:19	
				23. A bag contains 4 red balls and 5 green balls. Two balls are selected without replacement. Work out the probability of selecting one of each colour.	10:28	
3. Evaluate: $8^{-4/3}$	10:3	13. Find the nth term of this sequence: 0, 7, 18, 33, 52, 75 .....	10:15	24. Work out the inter-quartile range 	10:29	
4. Convert $0.\dot{6}\dot{5}$ to a fraction.	10:4	14. The nth term of a geometric sequence is $\sqrt{5}^n$ . Work out the 4th term.	10:16		10:30	
5. Five athletes take part in the 100m race. How many different orders of finish?	10:5	15. Work out the balance for £1500 invested for 4 years at 5.4% per annum 	10:17			
6. Expand: $(x + 1)^3$	10:6	16. <b>x = 10, y = 400</b> Find an equation for y in terms of x if y is directly proportional to $x^3$	10:18			
7. Factorise: $12x^2 - 7x - 10$	10:7	17. Find the angle of an arc length $4\pi$ and a diameter of 12cm	10:21			
8. Give the gradient of a line perpendicular to: $2x - y = 8$	10:8	18. Give the area of sector radius 3.4cm & angle $124^\circ$ (correct to 3sf) 	10:22			
9. Work out the equation of a line that passes through (3,1) & (5,5)	10:9	19. Find the SA of a sphere of diameter 16cm (correct to 3sf) ( $SA = 4\pi r^2$ ) 	10:23			
10. Work out the roots of the quadratic graph with the equation: $x^2 - 100 = 0$	10:12	20. Give the volume of a sphere of diameter 16cm (correct to 3sf) ( $V = \frac{4}{3}\pi r^3$ ) 	10:24			
Total (A)		Total (B)		Total (C)		
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)		