

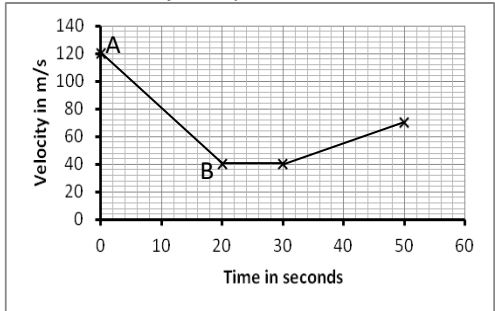
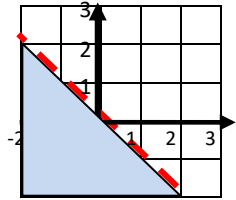
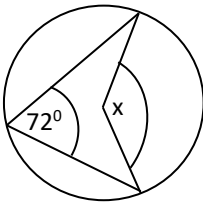
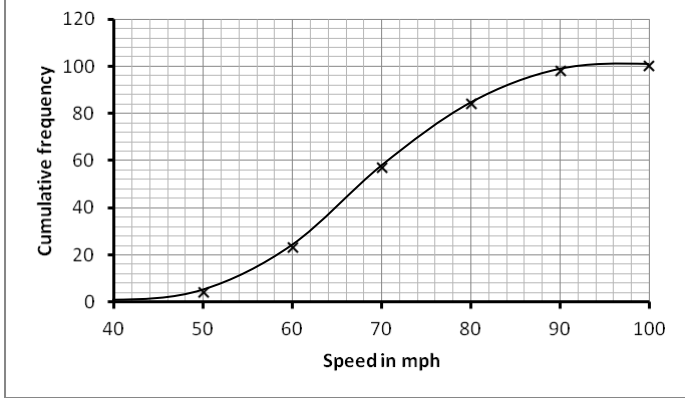

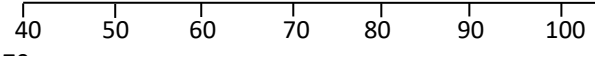



**Maths Key Skills**

**Stage 10: Skill Check 15**

Name: .....

Date: .....

Class/Group: .....

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(4.5 \times 10^3) + (3.7 \times 10^2)$	10:1	11. Describe the journey AB 	10:13	21. The total surface area of solid P is $24\text{cm}^2$ and Q is $96\text{cm}^2$ . If the volume of P is $12\text{cm}^3$ , work out the volume of Q.	10:26
2. Estimate to 1dp the answer to: $\sqrt[3]{200}$	10:2	12. What inequality is represented here? 	10:14	22. Give with a reason the size of angle 'x'. 	10:19
3. Evaluate: $81^{3/4}$	10:3	13. Find the nth term of this sequence: <b>5, 7, 11, 17, 25, 35 .....</b>	10:15	23. There are 3 red, 4 blue and 2 orange lollies in the freezer. Carl takes three lollies at random one at a time. What is the probability that he picked out a red then a blue and then an orange?	10:28
4. Convert $2.0\bar{6}$ to a fraction.	10:4	14. Work out the common ratio of this geometric sequence: $\frac{2}{9}, \frac{2}{3}, 2 \dots$	10:16	24. How many cars were driving in excess of 70 mph? 	10:29
5. How many license plates could be made using 2 letters and 3 digits (0-9)?	10:5	15. The 200 fish in a river is expected to decrease by 5% every year for the next 4 years. How many fish will be in the river after 4y? 	10:17	25. Draw the box plot using readings from the graph in Q23. The least speed recorded was 48mph and the highest was 98mph 	10:30
6. Expand: $(x-1)(x+4)(x+3)$	10:6	16. <b>P = 10000 and a=0.4</b> Find an equation for P in terms of a if P is inversely proportional to $a^2$	10:18		
7. Factorise: $2k^2 - 7k - 4$	10:7	17. Find the angle of an arc of length 30cm and a radius of 10cm correct to nearest whole degree.	10:21		
8 Give the gradient of a line perpendicular to: $y = \frac{2}{5}x - 3$	10:8	18. Give the area of sector radius 5cm & angle $172^\circ$ (correct to 3sf) 	10:22		
9. Work out the equation of a line joining (1, 1) and (3, 5)	10:9	19. Find the CSA of a cone of radius 8cm & perpendicular height 20cm (correct to 3sf) (CSA = $\pi r l$ ) l=slant height 	10:23		
10. Work out the roots of the quadratic graph with the equation: $x^2 + 4x - 12 = 0$	10:12	20. Give the volume of a cone of radius 5.2cm & slant height 12.6cm(3sf). ( $V = \frac{1}{3}\pi r^2 h$ ) h=perpendicular height 	10:24		
<b>Total (A)</b>		<b>Total (B)</b>		<b>Total (C)</b>	
<b>Test Total (A+B+C)</b>		<b>R (0-9)</b>	<b>Y (10-19)</b>	<b>G (20-25)</b>	