

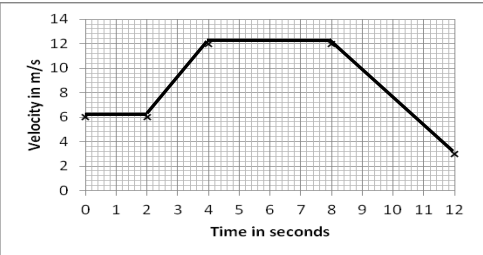

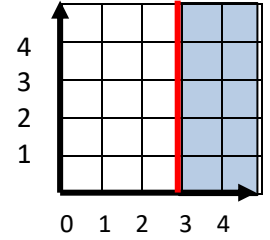
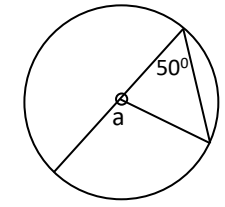
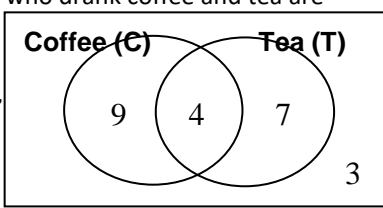
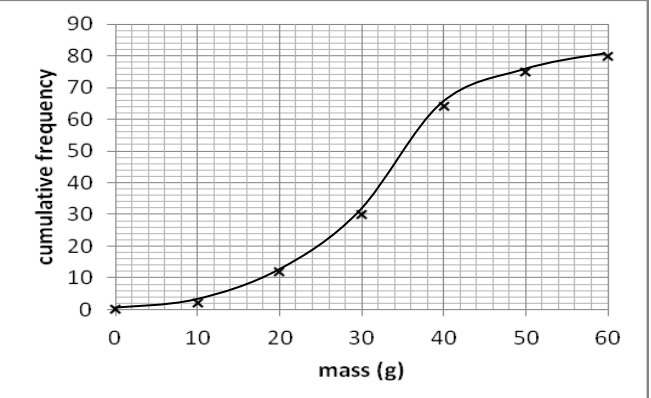

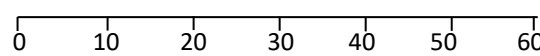

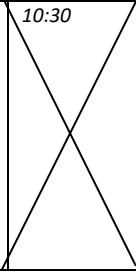

**Maths Key Skills**

**Stage 10: Skill Check 8**

Name: .....

Date: .....

Class/Group: .....

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(6 \times 10^{-2}) - (3 \times 10^{-3})$	10:1	11. Work out the distance travelled in the first 4s. 	10:13	21. Cones A & B are similar. The SA of A = $24\text{cm}^2$ & B = $54\text{cm}^2$ . The lengths of B = ? x lengths of A 	10:26
2. Estimate to 1dp the value of: $\sqrt{200}$	10:2	12. What inequality is represented here? 	10:14	22. Angle a = $100^\circ$ Give the reason 	10:19
3. Evaluate: $27^{4/3}$	10:3	13. Find the nth term of this sequence: 5, 9, 15, 23, 33, 45 .....	10:15	24. The results of a survey as to who drank coffee and tea are shown below. Work out the probability that a person chosen at random drank coffee, given that they drank tea. i.e. $p(C T)$ 	10:28
4. Convert $0.\overline{729}$ to a fraction	10:4	14. Write down the next 2 terms in the geometric sequence: 2, $2\sqrt{7}$ , 14	10:16	23. Work out the median 	10:29
5. How many ways are there of writing 3 digit numbers from the digits: 1, 2, 3, 4?	10:5	15. The cost of fuel is £1200 per year. With an increase of 10% per year, what will be the cost in 3 years time 	10:17	25. Draw the box plot using the graph on Q23. The lowest mass is 8g & the highest 57g 	10:30
6. Expand: $(y-1)(y-2)(y+3)$	10:6	16. <b><math>x = 8, y = 10</math></b> Find an equation for y in terms of x if y is inversely proportional to x	10:18		
7. Factorise: $2x^2 - 7x - 4$	10:7	17. Give the length of arc diameter 8cm & angle $30^\circ$ in terms of $\pi$ 	10:21		
8. Give the gradient of a line perpendicular to: $y = \frac{1}{2}x - 1$	10:8	18. Give the area of sector diameter 8cm & angle $30^\circ$ in terms of $\pi$ 	10:22		
9. Work out the equation of a line joining (1,5) and (2,2)	10:9	19. Give the area of a sphere of $r = 5\text{cm}$ in terms of $\pi$ . (SA = $4\pi r^2$ )	10:23		
10. Work out the roots of the quadratic graph with the equation $x^2 - 9 = 0$	10:10	20. Give the volume of a sphere of $r = 5\text{cm}$ in terms of $\pi$ . ( $V = \frac{4}{3}\pi r^3$ )	10:24		
<b>Total (A)</b>		<b>Total (B)</b>			
<b>Test Total (A+B+C)</b>		<b>R (0-9)</b>		<b>Y (10-19)</b>	<b>G (20-25)</b>