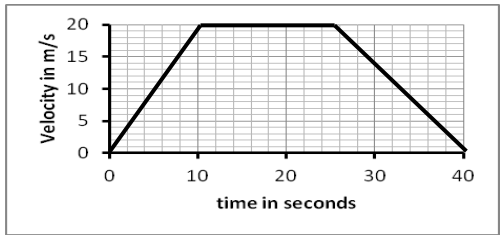
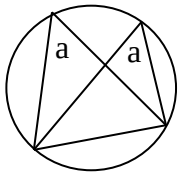
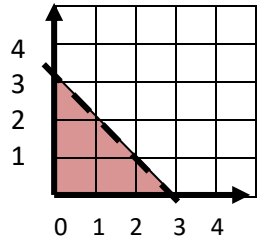
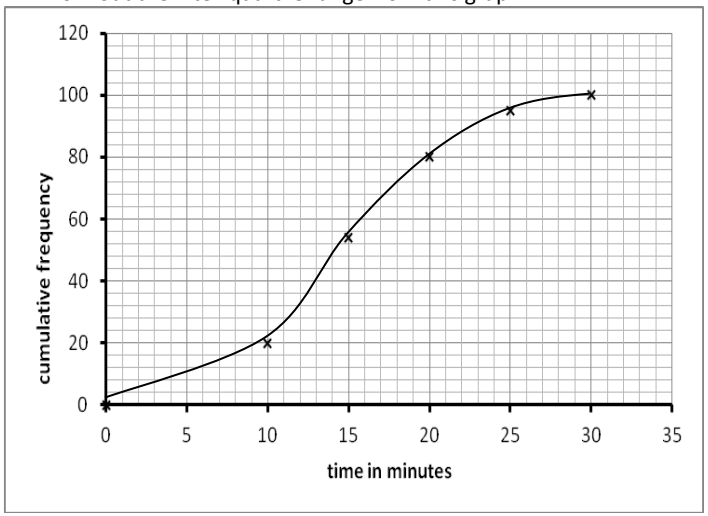
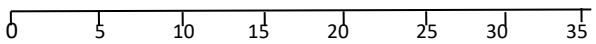
Maths Key Skills **Stage 10: Skill Check 2**

Name: ..... Date: ..... Class/Group: .....

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(4 \times 10^3) \div (8 \times 10^{5)}$	*10:1*	11. What is the distance travelled in last 15s? 	*10:13*	21. A garden plot is 40m². What would be the area of a plot with double the dimensions?	*10:25*
				22. The angles marked with the letter 'a' are equal. Give the reason 	*10:19*
2. Estimate to 1dp the answer to: $\sqrt[3]{70}$	*10:2*	12. What inequality is represented here? 	*10:14*	23. A box has 3 dark and 4 milk chocolates. What is the probability of picking out 2 dark chocolates?	*10:28*
				24. Work out the inter-quartile range from this graph 	*10:29*
3. Evaluate: $8^{1/3}$	*10:3*	13. Find the nth term of this sequence: 11, 17, 27, 41, 59	*10:15*		
4. Convert the recurring decimal to a fraction: $0.\dot{3}\dot{9}$	*10:4*	14. Write down the first 3 terms of a geometric sequence which has a first term of 3 and a common ratio 2.	*10:16*		
5. With 6 starters, 5 mains & 4 desserts, how many different 3 course meals are possible?	*10:5*	15. Work out the balance for £4500 invested for 2 years at 4% per annum compound interest	*10:17*		
6. Expand: $(y+3)(y+1)^2$	*10:6*	16. **x = 4, y = 8** Find an equation for y in terms of x if y is directly proportional to x^2	*10:18*		
7. Factorise: $2x^2 - 5x + 3$	*10:7*	17. Give the length of arc radius 4cm & angle 60^0 in terms of π	*10:21*		
8. Give the slope(gradient) of a line perpendicular to: $y = 5 - 2x$	*10:8*	18. Give the area of sector radius 4cm & angle 60^0 in terms of π	*10:22*		
9. Work out the equation of a line passing through (1,5) and (2, 7)	*10:9*	19. Give the surface area of the sphere of radius 6cm in terms of π ($SA=4\pi r^2$)	*10:23*	25. Use the graph in Q24 to draw a box plot on the grid below. The lowest time was 5min & the highest 28min 	*10:30*
10. Work out the roots of the quadratic graph with the equation **$x^2 - 3x - 4 = 0$**	*10:12*	20. Give the volume of the sphere of radius 6cm in terms of π ($V = \frac{4}{3}\pi r^3$)	*10:24*		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	