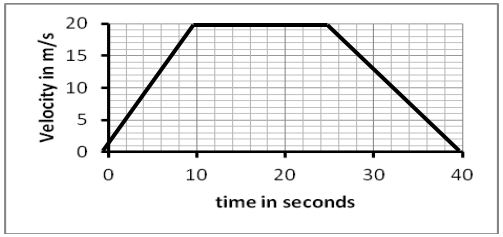
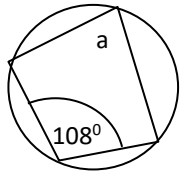
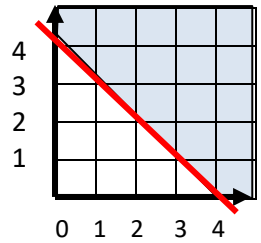
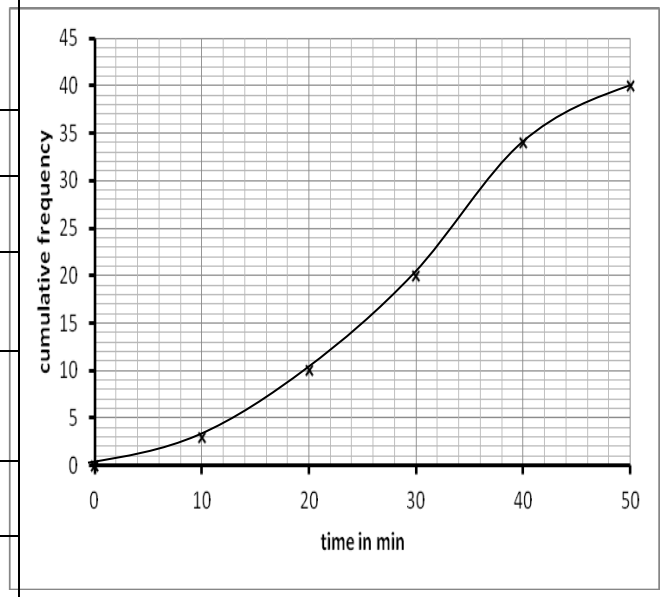
Maths Key Skills **Stage 10: Skill Check 3**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(3 \times 10^4) + (2 \times 10^5)$	*10:1*	11. Find the distance travelled between 10 & 25s? 	*10:13*	21. A brick has a volume of 300cm^3. What is the volume of a brick 3 times the corresponding lengths of it?	*10:26*
				22. The angle a = 72^0 Give the reason 	*10:19*
2. Estimate the value of 2.34^5	*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 milk chocolates?	*10:28*
				24. Work out the median from this graph 	*10:29*
3. Evaluate: $25^{-½}$	*10:3*	13. Find the nth term of this sequence: 0, 3, 8, 15. 24	*10:15*		
4. Convert the recurring decimal to a fraction: $0.\dot{7}$	*10:4*	14. Find the 5th term of the geometric sequence: 2, -6, 18, ...	*10:16*		
5. With 8 red balls in bag 1 & 12 blue balls in bag 2, how many ways are there for choosing a red and a blue?	*10:5*	15. Black tea has 56mg of caffeine. The caffeine decreases in the body at a rate of 15% per hour. How much is left after 3h?	*10:17*		
6. Expand: $(x+2)^3$	*10:6*	16. **x = 5, y = 20** Find an equation for y in terms of x if y is inversely proportional to x^2	*10:18*		
7. Factorise: $4x^2 - 9$	*10:7*	17. Give the length of arc radius 3cm & angle 120^0 in terms of π	*10:21*		
8. Give the slope(gradient) of a line perpendicular to: $2y=3x-8$	*10:8*	18. Give the area of sector radius 3cm & angle 120^0 in terms of π	*10:22*		
9. Work out the equation of a line passing through (3,4) & (5,8)	*10:9*	19. Give the curved surface area of a cone of radius 3cm & slant height 5cm in terms of π (CSA = πrl) l=slant height	*10:23*	25. Use the graph in Q23 to draw a box plot on the grid below. The lowest time was 5min & the highest 42min	*10:30*
10. Work out the roots of the quadratic graph with the equation: **$x^2 + 2x - 8 = 0$**	*10:12*	20. Give the volume of a cone of radius 2cm & perpendicular height 6cm in terms of π. (V= ⅓πr^{2}h) h=perpendicular height	*10:24*		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	