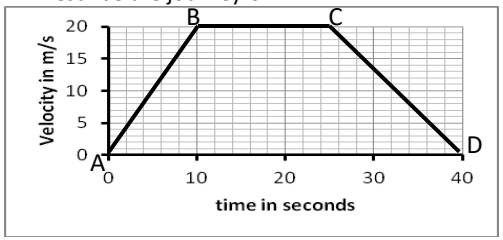
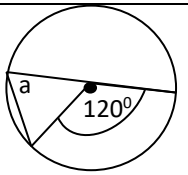
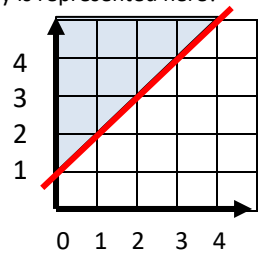
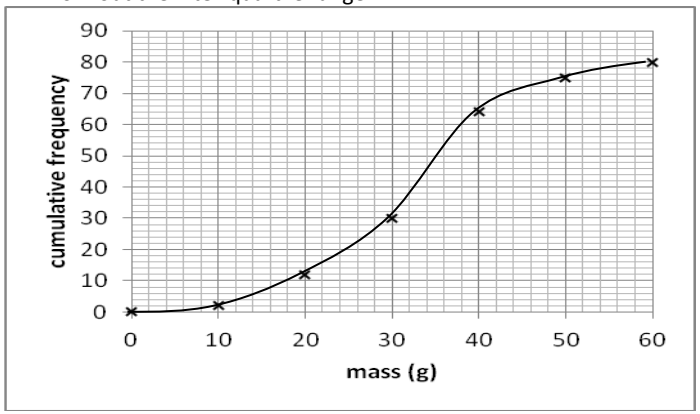
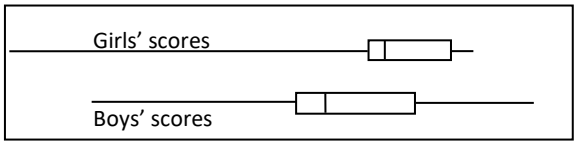
Maths Key Skills **Stage 10: Skill Check 7**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(6.2 \times 10^2) + (9.45 \times 10^3)$	*10:1*	11. Describe the journey CD 	*10:13*	21. Cuboids A & B are similar The SA of A & B are 60cm^2& 1500cm^2 The volume of A = 40cm^3. What is the volume of B?	*10:26*
				22. Angle a = 60^0 Give the reason 	*10:19*
2. Estimate to 1dp the value of $\sqrt{58}$	*10:2*	12 What inequality is represented here? 	*10:14*	23. A box contains 10 batteries. On testing 3 of them are found to be dead. If two batteries are chosen from the box of 10, what is the probability of choosing two dead ones?	*10:28*
				24. Work out the inter-quartile range 	*10:29*
3. Evaluate: $16^{3/2}$	*10:3*	13. Find the nth term of this sequence: 2, 7, 14, 23, 34, 47	*10:15*		
4. Convert $0.\dot{2}\dot{7}$ to a fraction	*10:4*	14. The nth term of a geometric sequence is $\sqrt{2}^n$. What is the 5th term?	*10:16*		
5. With 12 flavours of ice-cream, 4 different cones & 3 different toppings, how many combinations?	*10:5*	15. The population of a village is 3720 and decreasing at a rate of 3.5% per year. What will be the population in 5 years time?	*10:17*		
6. Expand: $(x-3)^3$	*10:6*	16. **d = 40, L = 5** Find an equation for d in terms of L if d is directly proportional to the cube of L	*10:18*	25. The boys' box is longer than the girls. What does this say about the boys? 	*10:30*
7. Factorise: $6x^2 + x - 12$	*10:7*	17. Give the length of arc diameter 10cm & angle 20^0 in terms of π	*10:21*		
8. Give the gradient of a line perpendicular to: $x + y = 6$	*10:8*	18. Give the area of sector diameter 10cm & angle 20^0 in terms of π	*10:22*		
9. Work out the equation of a line joining (1,2) and (5,10)	*10:9*	19. Give the CSA of a cone of r= 5cm & perpendicular height 12cm in terms of π. (CSA = πrl) l=slant height	*10:23*		
10. Work out the roots of the quadratic graph with the equation **$x^2 - 3x + 2 = 0$**	*10:12*	20. Give the volume of a cone of radius 5cm & perpendicular height 12cm in terms of π. (V= ⅓πr^2h) 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)