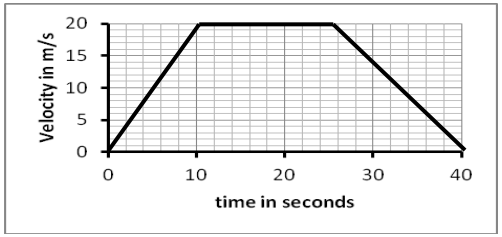
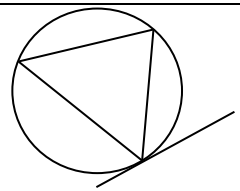
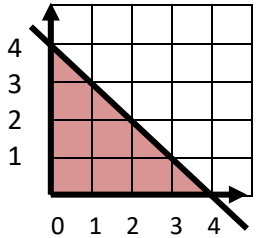
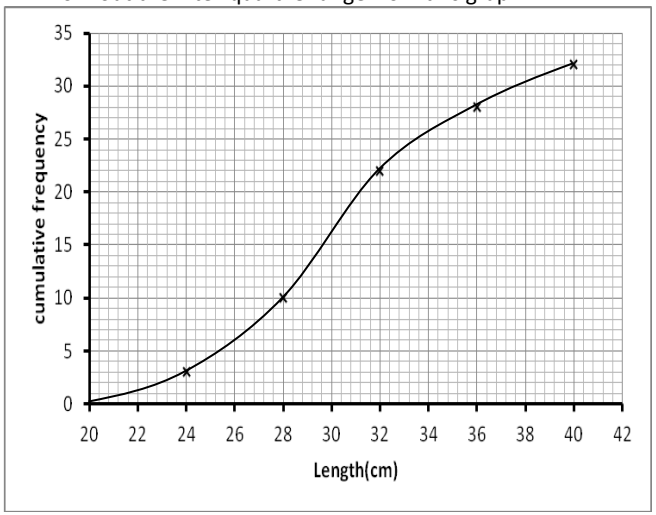
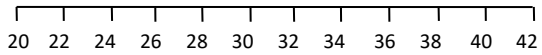
Maths Key Skills **Stage 10: Skill Check 1**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(5 \times 10^4) \times (6 \times 10^{9)}$	*10:1*	11 What is the distance travelled in the 1st 10sec?. 	*10:13*	21. The measurements of a box are doubled. What happens to its surface area?	*10:25*
				22. Indicate 2 angles that you **know** are equal 	*10:19*
2. Estimate to 1dp the answer to: $\sqrt{29}$	*10:2*	12. What inequality is represented here? 	*10:14*	23. 2 blue and 3 red marbles are in a bag. What is the probability of picking out 2 RED marbles together?	*10:28*
3. Evaluate: $9^{1/2}$	*10:3*	13. Find the nth term of this sequence: 3, 6, 11, 18, 27	*10:15*	24. Work out the inter-quartile range from this graph 	*10:29*
4. Convert the recurring decimal to a fraction: $0.\dot{4}$	*10:4*	14. Write down the first 3 terms of a geometric sequence which has a first term of 1 and a common ratio ½.	*10:16*		
5. How many ways can a boy and a girl be chosen from a group of 6 boys and 4 girls?	*10:5*	15. The value of a car depreciates by 35% per year. Work out the current value of a car bought 2 years ago for £20000.	*10:17*		
6. Expand: $(x+2)(x+3)(x+4)$	*10:6*	16. x = 4 when y = 8 Find an equation for y in terms of x , if y is directly proportional to x	*10:18*		
7. Factorise: $2x^2 + 9x + 10$	*10:7*	17. Give the length of arc radius 7cm & angle 80^0 in terms of π	*10:21*		
8. Give the slope(gradient) of a line perpendicular to: $y = 4x + 2$	*10:8*	18. Give the area of sector radius 7cm & angle 80^0 in terms of π	*10:22*	25. Use the graph in Q24 to draw a box plot on the grid below. The lowest length was 21cm & the highest 38 	*10:30*
9. Work out the equation of a line joining (0, 1) and (1, 3)	*10:9*	19. Give the surface area of the sphere of radius 3cm in terms of π ($SA=4\pi r^2$)	*10:23*		
10. Work out the roots of the quadratic graph with the equation: $\mathbf{x^2 - x - 6 = 0}$	*10:12*	20. Give the volume of the sphere of radius 3cm 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)	