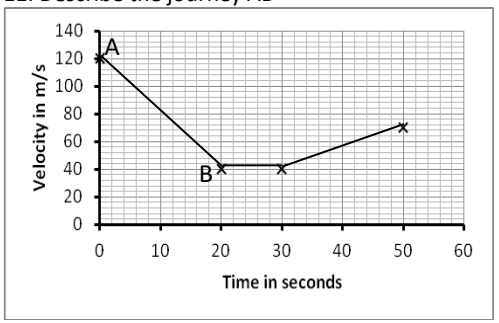
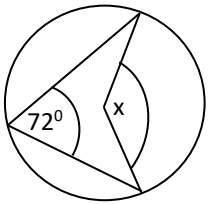
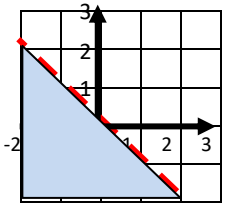
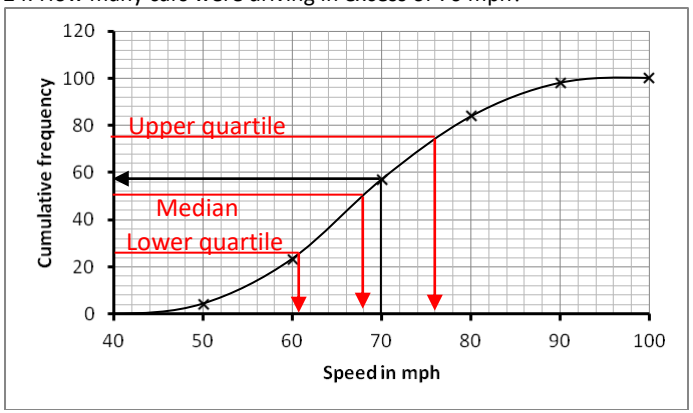
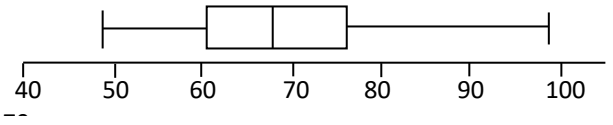
Maths Key Skills **Stage 10: Skill Check 15 Answers**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(4.5\times10^3)+(3.7\times10^2)$	*10:1* **4.87×10^3**	11. Describe the journey AB 	*10:13* **Deceleration of $4m/s^2$ or acceleration of $-4m/s^2$**	21. The total surface area of solid P is $24cm^2$ and Q is $96cm^2$. If the volume of P is $12cm^3$, work out the volume of Q.	*10:26* **$96cm^3$**
				22. Give with a reason the size of angle 'x'. 	*10:19* **144^0** **Angle at centre = 2xangle at circum**
2. Estimate to 1dp the answer to: $\sqrt[3]{200}$	*10:2* **$5^3 = 125$ $6^3=216$ ≈5+75/91 ≈5.8**	12. What inequality is represented here? 	*10:14* **$y < -x$**	23. There are 3 red, 4blue and 2 orange lollies i takes three lollies at random one at a time. Wh that he picked out a red then a blue and then a	3/9 x 4/8 x 2/7 = 24/504 **= 1/21**
				24. How many cars were driving in excess of 70 mph? 	*10:29* **100-56 = 44**
3. Evaluate: $81^{3/4}$	*10:3* **27**	13. Find the nth term of this sequence: **5, 7, 11, 17, 25, 35 .....**	*10:15* **n^2-n+5**		
4. Convert $2.0\dot{6}$ to a fraction.	*10:4* **186/90** $2\frac{1}{15}$	14. Work out the common ratio of this geometric sequence: $\frac{2}{9}, \frac{2}{3}, 2$ ...	*10:16* **3**		
5. Give the sum to find how many license plates could be made using 2 letters and 3 digits (0-9)?	*10:5* **26^2x10^3**	15. The 200 fish in a river is expected to decrease by 5% every year for the next 4 years. How many fish will be in the river after 4y?	*10:17* **$200x0.95^4$ ≈163**		
6. Expand: (x-1)(x+4)(x+3)	*10:6*	16. **P = 10000 and a=0.4** Find an equation for P in terms of a if P is inversely proportional to a^2	*10:18* **$P=\frac{1600}{a^2}$**		
$x^3+7x^2+12x-x^2-7x-12$ **$=x^3 + 6x^2 +5x - 12$**					
7. Factorise: $2k^2 - 7k - 4$	*10:7* **(2k+1)(k-4)**	17. Find the angle of an arc of length 30cm and a radius of 10cm correct to nearest whole degree.	*10:21* **172^0**		
8 Give the gradient of a line perpendicular to: $y = \frac{2}{5}x - 3$	*10:8* **-5/2**	18. Give the area of sector radius 5cm & angle 172^0 (correct to 3sf)	*10:22* **$37.5cm^2$**	25. Draw the box plot using readings from the graph in Q23. The least speed recorded was 48mph and the highest was98mph 	*10:30*
9. Work out the equation of a line joining (1, 1) and (3, 5)	*10:9* **y=2x-1**	19. Find the CSA of a cone of radius 8cm & perpendicular height 20cm (correct to 3sf) (CSA = πrl) l=slant height	*10:23* **$541cm^2$**		
10. Work out the roots of the quadratic graph with the equation: **$x^2 +4x -12=0$**	*10:12* **x=-6 & 2**	20. Give the volume of a cone of radius 5.2cm & slant height 12.6cm(3sf). ($V= \frac{1}{3}\pi r^2 h$) h=perpendicular height	*10:24* **$325cm^3$**		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	