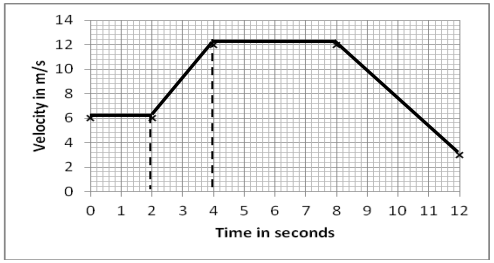
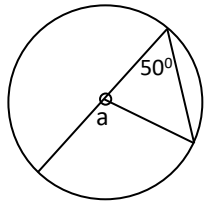
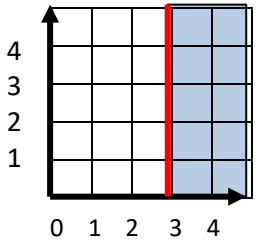
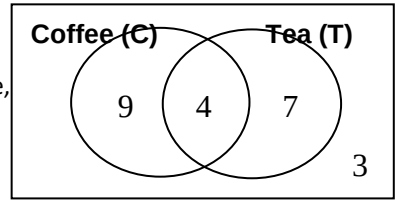
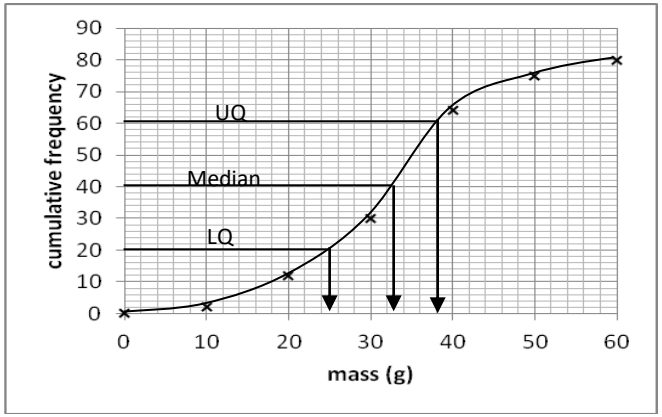
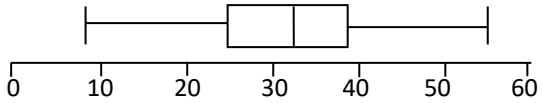
Maths Key Skills **Stage 10: Skill Check 8 Answers**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(6x10^{-2})-(3x10^{-3})$	*10:1* **$5.7x10^{-2}$**	11. Work out the distance travelled in the first 4s. 	*10:13* **6x2+ ½ (6+12)x2 =12+18 30m**	21. Cones A & B are similar. The SA of A = $24cm^2$ & B = $54cm^2$ The lengths of B = **?** x lengths of A	*10:26* **1.5**
				22. Angle a = 100^0 Give the reason 	*10:19* **Angle at centre = 2x angle at circum**
2. Estimate to 1dp the value of: $\sqrt{200}$	*10:2* **$13^2 = 169$ $14^2=196$ $15^2=225$ ≈14+5/2 9 ≈14.1**	12. What inequality is represented here? 	*10:14* **x ≥ 3**	24. The results of a survey as to who drank coffee and tea are shown below. Work out the probability that a person chosen at random drank coffee, given that they drank tea. i.e. p(C|T) 	*10:28* **4/11**
3. Evaluate: $27^{4/3}$	*10:3* **81**	13. Find the nth term of this sequence: 5, 9, 15, 23, 33, 45	*10:15* **n^2+n+3**	23. Work out the median 	*10:29* **33g**
4. Convert $0.\dot{7}2\dot{9}$ to a fraction	*10:4* **27/37**	14. Write down the next 2 terms in the geometric sequence: 2, 2√7, 14	*10:16* **14√7, 98**		
5. How many ways are there of writing 3 digit numbers from the digits: 1, 2, 3, 4?	*10:5* **4x4x4 =64**	15. The cost of fuel is £1200 per year. With an increase of 10% per year, what will be the cost in 3 years time	*10:17* **1200x1.1³ £1597.20**		
6. Expand: (y-1)(y-2)(y+3) **$(y-1)(y^2+y-6) = y^3+y^2-6y-y^2-y+6 = y^3-7y+6$**	*10:6*	16. **x = 8, y = 10** Find an equation for y in terms of x if y is inversely proportional to x	*10:18* **y=80/x**		
7. Factorise: $2x^2-7x-4$	*10:7* **(2x+1)(x-4)**	17. Give the length of arc diameter 8cm & angle 30^0 in terms of π	*10:21* **⅔π cm**		
8. Give the gradient of a line perpendicular to: y= ½x -1	*10:8* **-2**	18. Give the area of sector diameter 8cm & angle 30^0 in terms of π	*10:22* **4π/3 cm^2**	25. Draw the box plot using the graph on Q23. The lowest mass is 8g & the highest 57g 	*10:30*
9. Work out the equation of a line joining (1,5) and (2,2)	*10:9* **y=8-3x**	19. Give the area of a sphere of r= 5cm in terms of π. ($SA=4\pi r^2$)	*10:23* **100π cm^2**		
10. Work out the roots of the quadratic graph with the equation **$x^2-9=0$**	*10:10* **x=3 & -3**	20. Give the volume of a sphere of r= 5cm in terms of π. ($V=\frac{4}{3}\pi r^3$)	*10:24* **500π/3 cm^3**		
Total (A)		Total (B)			
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	