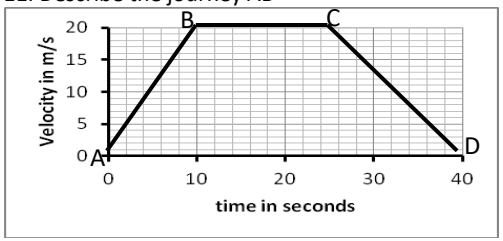
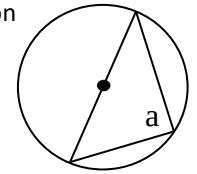
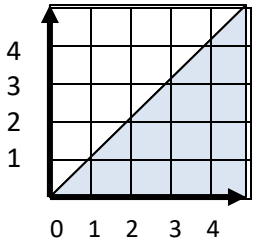
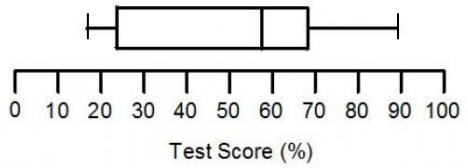
Maths Key Skills **Stage 10: Skill Check 5**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(2 \times 10^4) \times (7 \times 10^3)$	*10:1*	11. Describe the journey AB 	*10:13*	21. 48cm³ of clay were used to make a model. How much clay would be needed to make one ½ the size of the corresponding lengths?	*10:26*
				22. What is the size of angle a? Give a reason 	*10:19*
2. Estimate the value of 2.78^4	*10:2*	12. What inequality is represented here? 	*10:14*	23. Here is a table of the right & left hand students in a class Work out the probability that a person chosen at random will be: Male, given that he is right handed i.e. p(M|R) Right-handed **(R)** / Left-handed **(L)** / Total Male (M): 8 / 3 / 11 Female (F): 5 / 2 / 7 Total: 13 / 5 / 18	*10:28*
3. Evaluate: $4^{3/2}$	*10:3*	13. Find the nth term of this sequence: 0, 2, 6, 12, 20, 30	*10:15*	24. Complete the cumulative frequency table	*10:29*
4. Convert $0.4\dot{5}$ to a fraction	*10:4*	14. Give the next two terms of this geometric sequence: 3, 3√5, 15, 15√5, ..., ...	*10:16*		
5. At a Pizza shop, there is deep or thin base and a topping from 6 choices. How many combinations?	*10:5*	15. The population of a village of 5940 is increasing by 5% per annum. Work out the population in 2 years time.	*10:17*		
6 Expand: $(x+5)(x-2)^2$	*10:6*	16. **m = 3, n = 16** Find an equation for m in terms of n if m is inversely proportional to √n	*10:18*		
7. Factorise: $32 - 2x^2$	*10:7*	17. Give the length of arc radius 6cm & angle 150^0 in terms of π	*10:21*	25. Estimate the median from this box plot	*10:30*
8. Give the gradient of a line perpendicular to: $y - 3x = 2$	*10:8*	18. Give the area of sector radius 6cm & angle 150^0 in terms of π	*10:22*		
9. Work out the equation of a line joining (4,5) & (8,3)	*10:9*	19. Give the curved surface area of a cone of r= 4cm & slant height 8cm in terms of π. (CSA = πrl) l=slant height	*10:23*		
10. Work out the roots of the quadratic graph with the equation $x^2 + 5x + 6 = 0$	*10:12*	20. Give the volume of a cone of radius 3cm & perpendicular height 5cm in terms of π (V= ⅓πr²h) 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)

Height	frequency	Height	cf
170≤h<175	5	170≤h<175	
175≤h<180	18	170≤h<180	
180≤h<185	12	170≤h<185	
185≤h<190	4	170≤h<190	
190≤h<195	1	170≤h<195