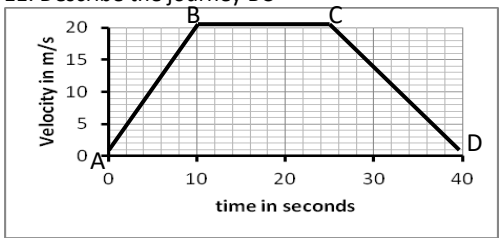
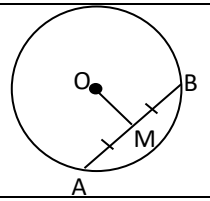
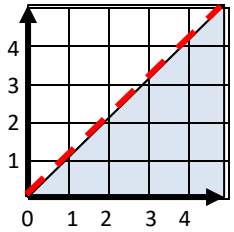
Maths Key Skills **Stage 10: Skill Check 6 Answers**

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

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(8x10^5)\div(4x10^{-3})$	*10:1* **$2x10^8$**	11. Describe the journey BC 	*10:13* **Constant speed of 20m/s**	21. Cuboids A & B are similar The SA of A = $60cm^2$ The SA of B = $1500cm^2$ The lengths of B = **?** x lengths of A	*10:26* **5**
				22. M is the midpoint of AB. What else can be derived from this fact? 	*10:19* **OM is perpend to AB**
2. Estimate to 1dp the value of: $\sqrt{19}$	*10:2* **$4^2 = 16$ $5^2 = 25$ 4+3/9 ≈4.4(3)**	12 . What inequality is represented here? 	*10:14* **y<x**	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: Left-handed, given that she is female i.e. p(L|F)	*10:28* **2/7**
3. Evaluate: $27^{⅔}$	*10:3* **9**	13 Find the nth term of this sequence: 2, 8, 18, 32, 50, 72	*10:15* **$2n^2$**	24. Complete the cumulative frequency table	*10:29*
4. Convert $0.\dot{5}$ to a fraction	*10:4* **5/9**	14. The nth term of a geometric sequence is $\sqrt{3}^n$. Write down the first 3 terms.	*10:16* **$\sqrt{3}$,3,3$\sqrt{3}$**		
5. From 10 different toppings, you can choose any 3. How many combinations?	*10:5* **1000**	15. Work out the balance for £2400 invested for 10 years at 5% per annum	*10:17* **£3909.35**		
6. Expand: (x-4)(x+1)(x-3) **$(x-4)(x^2-2x-3) = x^3-2x^2-3x-4x^2+8x+12 = x^3-6x^2+5x+12$**	*10:6*	16. **s = 40, e = 25** Find an equation for s in terms of e if s is directly proportional to √e	*10:18* **$S=\frac{8\sqrt{e}}{3}$**		
7. Factorise: $4a^2 - b^2$	*10:7* **(2a-b)(2a+b)**	17. Give the length of arc diameter 8cm & angle 45^0 in terms of π	*10:21* **π cm**	25. On average who had the better scores, boys or girls?	*10:30* **Girls** (Higher median)
8. Give the gradient of a line perpendicular to: y=8- ½x	*10:8* **2**	18. Give the area of sector diameter 8cm & angle 45^0 in terms of π	*10:22* **2π cm^2**		
9. Work out the equation of a line joining (3,2) & (0,5)	*10:9* **y=5-x**	19. Give the CSA of a cone of r= 3cm & perpendicular height 4cm in terms of π. (CSA = πrl) l=slant height	*10:23* **Πx3x5 15π cm^2**		
10. Work out the roots of the quadratic graph with the equation **$x^2 - 25 = 0$**	*10:12* **x=5 & -5**	20. Give the volume of a cone of radius 3cm & perpendicular height 8cm in terms of π. (V= ⅓πr²h) h=perpendicular height	*10:24* **⅓xπx3^2x8 24π cm^3**		
Total (A)		Total (B)			
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	

	(R)	(L)	Total
Male (M)	8	3	11
Female (F)	5	2	7
Total	13	5	18

Score	f	Score	cf
0≤h<20	4	0≤h<20	4
20≤h<40	11	0≤h<40	15
40≤h<60	13	0≤h<60	28
60≤h<80	15	0≤h<80	43
80≤h<100	7	0≤h<100	50