

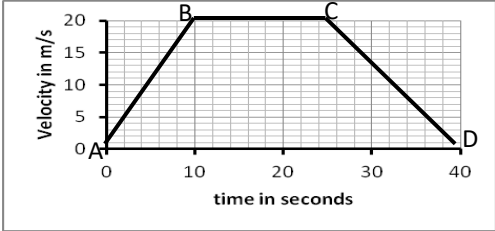
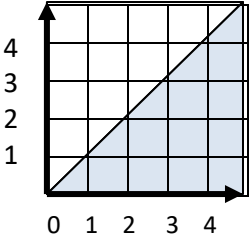
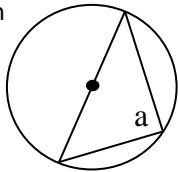

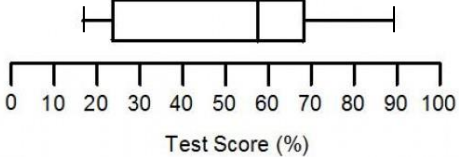



Maths Key Skills

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. 48cm^3 of clay were used to make a model. How much clay would be needed to make one $\frac{1}{4}$ the size of the corresponding lengths?	10:26																								
2. Estimate the value of 2.78^4	10:2	12. What inequality is represented here? 	10:14	22. What is the size of angle a? Give a reason 	10:19																								
3. Evaluate: $4^{3/2}$	10:3	13. Find the nth term of this sequence: 0, 2, 6, 12, 20, 30	10:15	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. $p(M R)$	10:28																								
4. Convert $0.4\dot{5}$ to a fraction	10:4	14. Give the next two terms of this geometric sequence: 3, $3\sqrt{5}$, $15\sqrt{5}$,,	10:16	<table border="1" data-bbox="1205 555 1901 679"> <tr> <td></td> <td>Right-handed (R)</td> <td>Left-handed (L)</td> <td>Total</td> </tr> <tr> <td>Male (M)</td> <td>8</td> <td>3</td> <td>11</td> </tr> <tr> <td>Female (F)</td> <td>5</td> <td>2</td> <td>7</td> </tr> <tr> <td>Total</td> <td>13</td> <td>5</td> <td>18</td> </tr> </table>		Right-handed (R)	Left-handed (L)	Total	Male (M)	8	3	11	Female (F)	5	2	7	Total	13	5	18									
	Right-handed (R)	Left-handed (L)	Total																										
Male (M)	8	3	11																										
Female (F)	5	2	7																										
Total	13	5	18																										
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	24. Complete the cumulative frequency table <table border="1" data-bbox="1205 783 1924 1002"> <thead> <tr> <th>Height</th> <th>frequency</th> <th>Height</th> <th>cf</th> </tr> </thead> <tbody> <tr> <td>$170 \leq h < 175$</td> <td>5</td> <td>$170 \leq h < 175$</td> <td></td> </tr> <tr> <td>$175 \leq h < 180$</td> <td>18</td> <td>$170 \leq h < 180$</td> <td></td> </tr> <tr> <td>$180 \leq h < 185$</td> <td>12</td> <td>$170 \leq h < 185$</td> <td></td> </tr> <tr> <td>$185 \leq h < 190$</td> <td>4</td> <td>$170 \leq h < 190$</td> <td></td> </tr> <tr> <td>$190 \leq h < 195$</td> <td>1</td> <td>$170 \leq h < 195$</td> <td></td> </tr> </tbody> </table>	Height	frequency	Height	cf	$170 \leq h < 175$	5	$170 \leq h < 175$		$175 \leq h < 180$	18	$170 \leq h < 180$		$180 \leq h < 185$	12	$170 \leq h < 185$		$185 \leq h < 190$	4	$170 \leq h < 190$		$190 \leq h < 195$	1	$170 \leq h < 195$		10:29
Height	frequency	Height	cf																										
$170 \leq h < 175$	5	$170 \leq h < 175$																											
$175 \leq h < 180$	18	$170 \leq h < 180$																											
$180 \leq h < 185$	12	$170 \leq h < 185$																											
$185 \leq h < 190$	4	$170 \leq h < 190$																											
$190 \leq h < 195$	1	$170 \leq h < 195$																											
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 \sqrt{n}	10:18	25. Estimate the median from this box plot 	10:30																								
7. Factorise: $32 - 2x^2$	10:7	17. Give the length of arc radius 6cm & angle 150° in terms of π	10:21																										
8. Give the gradient of a line perpendicular to: $y - 3x = 2$	10:8	18. Give the area of sector radius 6cm & angle 150° 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 $r = 4\text{cm}$ & slant height 8cm in terms of π . (CSA = $\pi r l$) 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 ($V = \frac{1}{3}\pi r^2 h$) 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)																								