

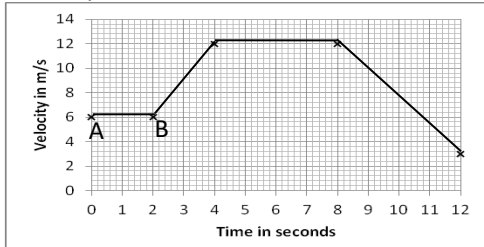

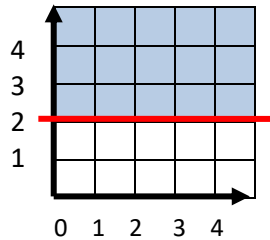
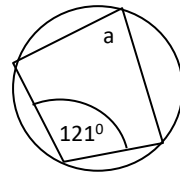
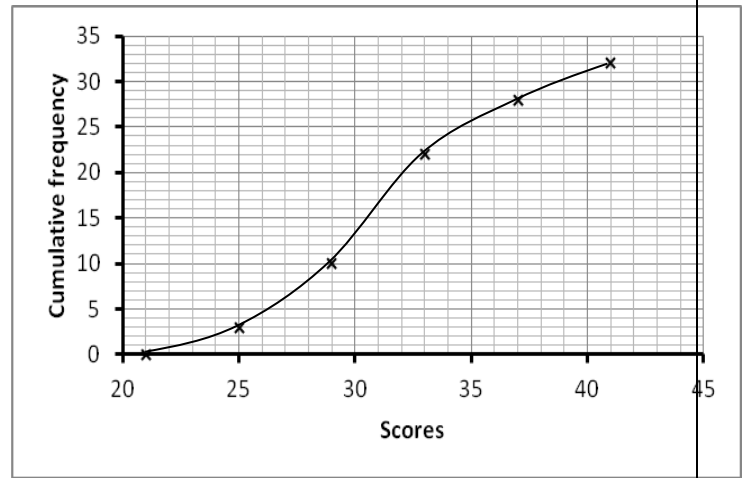

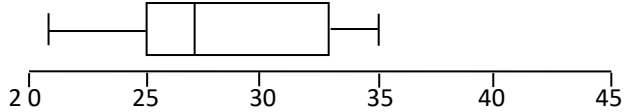


Maths Key Skills

Stage 10: Skill Check 10

Name:

Date:

Class/Group:

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(6 \times 10^7) \times (3 \times 10^{-2})$	10:1	11. Interpret the line AB 	10:13	21. A logo 1.2cm high covers 3.5cm ² A similar logo covers 14cm ² . Give the height of this similar one? 	10:26
2. Estimate to 1dp the value of $\sqrt{130}$	10:2	12. What inequality is represented here? 	10:14	22. The angle $a = 59^\circ$. Give the reason. 	10:19
3. Evaluate: $27^{-2/3}$	10:3	13. Find the nth term of this sequence: -4, -1, 4, 11, 20, 31	10:15	24. A box contains 10 batteries. On testing, 3 of them are found to be dead. If two batteries are chosen from the box of 10, what is the probability that one is good and the other dead?	10:28
4. Convert $0.2\bar{13}$ to a fraction	10:4	14. What is the common ratio for this sequence? $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots$	10:16	23. Work out the median score. 	10:29
5. If an ordinary dice is rolled 3 times. How many possible outcomes are there?	10:5	15. £10 000 is invested in a savings bond at 4% per annum. What will the bond be worth after 3 years? 	10:17		
6. Expand: $(x+4)(x+2)(x-1)$	10:6	16. $x = 1, y = 10$ Find an equation for y in terms of x if y is inversely proportional to x^2	10:18		
7. Factorise: $5x^2 + 9x - 2$	10:7	17. Find the angle of an arc length 2π & $d = 10\text{cm}$	10:21	25. Write down an estimate for the inter-quartile range from this box plot. 	10:30
8. Give the gradient of a line perpendicular to: $y = 3x - 5$	10:8	18. Give the area of sector radius 13cm & angle 150° (correct to 3sf) 	10:22		
9. Give the equation of the graph passing through (1,7) & (-2,4)	10:9	19. Find the CSA of a cone of diameter 6cm and slant height 10cm in terms of π . (CSA = πrl) l=slant height	10:23		
10. Work out the roots of the quadratic graph with the equation: $x^2 + 6x + 5 = 0$	10:10	20. Give the volume of a cone of diameter 10cm & slant height 13cm 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)	