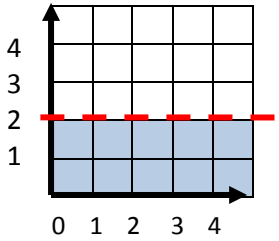
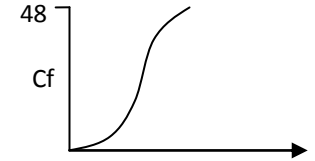
Caldew School **Maths Basic Skills** Level 8 Test 14

Name _____ **Date**_____ **Class**_____

Section A:Numbers & calculating		Section B: Algebra & Shape, space & measures		Section C: Using and applying	
8.1 1. Write $\frac{4}{15}$ as a recurring decimal		*8.4* 11. Factorise: $x^2 + x - 12$		**21. Linear-Quadratic-Cubic-Reciprocal** Which type of function is represented by this equation? $y = x^3 - 2x^2$	
8.1 2. Write $0.\dot{1}8\dot{9}$ as a fraction		*8.4* 12. Factorise: $x^2 - 9y^2$			
8.2 3. Work out the balance for £240 invested for 3 years at 6% per annum		*8.5* 14. Multiply & simplify: $(2x - 3)(2x + 3)$		22. What inequality is represented here?  	
8.2 4. The value of a motorbike depreciates by 32% per year. Work out the current value of a motorbike bought 5 years ago for £3600.		*8.5* 14. Multiply & simplify: $(3a - 5)^2$			
8.2 5. In a '80% off' sale, an oven was £112. Work out the original price.		*8.6* 15. Make v the subject of the formula: $s = \frac{uv}{u + v}$		23. $P(1^{st}$ traffic lights are RED) = 0.7 $P(2^{nd}$ traffic lights are RED) = 0.3 What is the probability that both are RED?	
8.2 6. A water bill has increased by 25% to £52.50. Work out the original cost.		*8.6* 16. Make r the subject of the formula: $v = 4\pi r^2 h$			
8.3 7. Write 0.034 in standard form:		*8.7* 17. $d = \sqrt{a^2 + b^2 + 2ab}$ Find d when a = 4 and b = 7		24. Max rolls 2 dice P(the total is 12) = 0.03 P(the total is 10) = 0.08 What is the probability that Max rolls 2 dice and gets totals of 12 or 10?	
8.3 8. Write 3.125×10^3 as an ordinary number		*8.7* ***Give your answer correct to 3sf*** 18. $d = \sqrt{a^2 + b^2 + c^2}$ Find d when a = 5.2 b = 3.8 & c = -4			
8.3 9. Work out $(6.2 \times 10^5) - (3.7 \times 10^4)$ Give your answer in standard form		*8.12* 19. If $\sin 18^0 = \frac{23}{x}$, find x (3sf)		25. Show on the cumulative frequency graph how to take the lower quartile reading  	
8.3 10. Work out $(5.8 \times 10^5) \times (3.5 \times 10^3)$ Give your answer in standard form		*8.13* LENGTH or AREA or VOLUME 20. Which measure does this expression represent: $\mathbf{a^3 \div a}$			
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	