This test is divided into non-calculator (30 minutes) and calculator (20 minutes) sections which can be delivered separately.

The following marks are awarded for each question.

B	Unconditional accuracy mark
M	Method mark – the correct method must be shown but there may be an arithmetic error; the sight of the value given in brackets implies the award of the method mark
A	Accuracy mark – unless the question specifies that working **must** be shown then the sight of the correct answer implies the award of full marks (unless the answer clearly comes from incorrect working)
C	Communication mark
P	Process mark to show correct process for problem solving. Any other process of a similar standard to achieve an accurate result is acceptable to achieve this mark
FT	Incorrect values may be **followed through** from one step to the next **provided** that the correct method is seen in each step and the only errors are arithmetic. This is shown in mark schemes by putting a number in inverted commas
OE	Or equivalent answer mark

Non-Calculator

Q	Answer	Mark	Comment
1a	positive	B1	
1b	As x increases, y increases	B1	OE
3	Statement that the lines are parallel as gradients are the same. Two correct equations in the same form, e.g. $y = 2x + 5$ and $y = 2x + 3$ or $2y - 4x = 10$ and $2y - 4x = 6$	M1	for method to find the gradient for each line e.g. $2y = 4x + 6$ and $y = 2x + 3$
		C1	for parallel as gradient for each = 2 OE

5	$y = 3x - 2$	M1	where c is any number or zero $y = 3x + c$
		M1	substitution of $x = 2$ and $y = 4$ into a correct equation $4 = 3 \times 2 + c$ or $y - 4 = 3(x - 2)$ OE
		A1	OE
7	Correct line between −1 and 4	B3	B2 for a correct line through at least three of $(-1, 7)$ $(0, 5)$ $(1, 3)$ $(2, 1)$ $(3, -1)$ $(4, -3)$ or for all points plotted but not joined B1 for at least two correct points stated (may be in table) or for a line drawn with a negative gradient through $(0, 5)$ or for a line with gradient −2
9a	$(2, -8)$	B1	
9b	$x = 2$	B1	
9c	0.8, 3.2	B2	B1 for one value or for the line $y = -5$ rawn or for two vertical lines from the curve in the correct place
9d	(x =) 0.5 or 4	M1	line $y = x - 4$ drawn
		A1 A1	Answers ± 0.1

Calculator

11	$(1, 8.5)$ OE	M1	$\frac{-3+5}{2}$ or $\frac{7+10}{2}$ OE or $(x, 8.5)$ or $(1, y)$
		A1	
13	E, D, C, A, B	B3	B3 for all correct; B2 for three or four correct; B1 for two correct
15	15 (cm)	M1	$(16 - 4)^2 + (7 - 2)^2$ $(= 12^2 + 9^2)$
		M1	$\sqrt{(16 - 4)^2 + (7 - -2)^2}$
		A1	

Question	Topic	Step	Marks
Non-Calculator			
1a	Describe correlation by inspection: strong or weak; positive, negative or zero	7th	1
1b	Describe correlation by inspection: strong or weak; positive, negative or zero	7th	1
3	Identify parallel lines from their equations when they are in the form $y = mx + c$	7th	2
4c	Identify parallel lines from their equations when they are in the form $y = mx + c$	6th	1
5	Write down the equation of a line parallel to a given line	8th	3
7	Plot the graphs of linear functions in the form $y = mx + c$ and recognise and compare their features	7th	3
9a	Recognise a graph which represents a quadratic function	7th	1
9b	Identify the line of symmetry of a quadratic graph	8th	1
9c	Identify and interpret roots and intercepts of a cubic graph	9th	2
9d	Identify and interpret roots and intercepts of a cubic graph	9th	3

Calculator			
11	Find the coordinates of the midpoint of a line from coordinates using a formula	9th	2
13	Recognise a quadratic function from its equation and explain the shape of its graph, Recognise, sketch and interpret graphs of simple cubic functions, Plot graphs of the exponential function $y = kx$ for integer values of x and simple positive values of k graphs	8th, 9th, 11th	3
15	Use and apply Pythagoras' theorem to solve problems in 2D	8th	3