Question	Answer	Marks	Notes and guidance
1	24	2	Award 1 mark for sight of one share worked out as 8 or $40 \div 5$ or equivalent seen
	0.6 : 1	1	Accept $\frac{3}{5}$: 1
2	Accept 15 – 18 inclusive	2	Award 1 mark for line for reasonable attempt at line of best fit
	Any reasonable explanation e.g. • There is strong correlation • The points are close to a straight line	1	
	Any reasonable explanation e.g. • There is a non-linear relationship • There is no correlation, but there is a different pattern	1	
3	8	1	
	80	1	

Year 8 Autumn Higher Paper A

4	Completes table correctly 	1 × 1	2	3	4
1	1	2	3	4
2	2	4	6	8
3	3	6	9	12
4	4	8	12	16		1	
	$\frac{3}{16}$	1	Accept any correct equivalent. Follow through from their table.
	$\frac{1}{4}$	1	Accept any correct equivalent. Follow through from their table.
5	- 4, - 4 and 4	2	Award 1 mark for any two values correct
	Plots points correctly and joins with reasonably smooth curve	2	Award 1 mark for at least 5 of their points plotted correctly
6	States "no" and gives a valid reason e.g. • He drive three times as far as she did • His distance is three times greater	1	
	180 60	2	Award 1 mark for attempt at 120 ÷ 2
7	$\frac{5}{6}$	2	Award 1 mark for correct method e.g. attempt at $\frac{2}{3} \times \frac{5}{4}$
	12	1	

	$\frac{5b}{3}$	1	
8	Indicates middle graph only	1	Accept any clear indication e.g. tick, circle, underlined
	48 (miles)	1	
	40 (minutes)	1	
9	3	1	
	(0, 1)	1	
	(1, 2)	1	
10	$4\frac{7}{12}$	3	Award 2 marks for fully correct multiplication of $3\frac{2}{3}$ and $1\frac{3}{4}$ (i.e. $\frac{77}{12}$ or equivalent) OR Fully correct method with no more than one arithmetical error OR $\frac{55}{12}$ Award 1 mark for correct method to multiply $3\frac{2}{3}$ by either $1\frac{1}{4}$ or $1\frac{3}{4}$

11	Completes table correctly 		London	Manchester	York	Total
Year 7	65	50	38	153
Year 8	32	40	75	147
Total	97	90	113	300		3	Award 1 marks for correctly placing all given data |	London	Manchester	York	Total
Year 7	65			
Year 8	32	40		147
Total		90		300 | Award 2 marks for correctly placing all given data and working out at least two other values correctly
12	52.5 m^2	3	Accept 525 000 cm^2 Award 1 mark for correct method Award 1 mark for correct answer Award 1 mark for correct units
13	$\frac{1}{4}$	1	Accept any correct equivalent e.g. $\frac{2}{8}$, 25%, 0.25
	$\frac{1}{4}$	1	Accept any correct equivalent e.g. $\frac{2}{8}$, 25%, 0.25

Question	Answer	Marks	Notes and guidance
1	Selects all three pairs correctly i.e. $3(a-4)$ and $3a-12$ $a \times a \times a$ and a^3 $8+a$ and $a+8$	2	Award 1 mark for two correct pairs
2	2	1	
	Chooses $y = \frac{1}{2}x$ and $y = 12 - x$ only	1	Accept any clear indication – circled, underlined, ticked etc.
3	Completes table correctly: • 7 in final column • 10 dots drawn in correct pattern on third row	1	Award 1 mark for 2 boxes correctly ticked and no other errors
	$3n + 1$	2	Award 1 mark for any expression involving $3n$
	States yes and shows $1 \times 5 = 5$ $5 \times 5 = 25$ $25 \times 5 = 125$ $125 \times 5 = 625$	1	
4	9	2	Award 1 mark for at least one of $4^0 = 1$ or $64^{\frac{1}{2}} = 8$ seen
	4^{30}	1	

5	$\frac{24}{15}$ or equivalent e.g. $\frac{8}{5}$, 1.6 etc.	1	
	64	2	Award 1 mark for correct method e.g. $40 \div 5 \times 8$ or equivalent
6	> =	2	Award 1 mark for each correct symbol
	4×10^{-2}	2	Award 1 mark for 0.04 seen
7	Rounds 38.1cm to 40 cm (or equivalent) and multiplies by 3 120 cm or 1.2 m	1 1	No marks for just the answer
	100	1	
8	> < <	3	Award 1 mark for each correct answer
9	$12a^3$	1	
	$3a$	1	
10	180	3	Award 1 mark for 60% = 108 seen or implied Award 1 mark for correct method to find total from their percentage =108

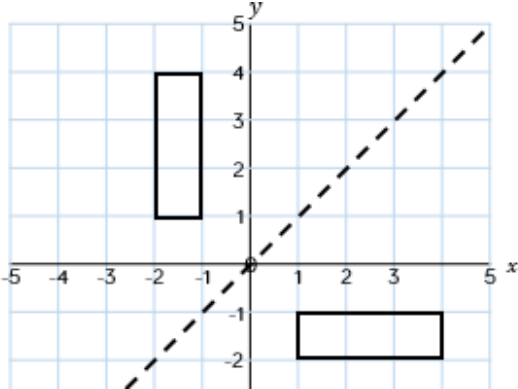|			
11	Obtains $a^2, 7a$ and 35	2	Award 1 mark for any two correct answers – do not accept $a7$ for $7a$
	$a^2 + 12a + 35$	1	Allow terms in any order Follow through from first part provided answer includes a^2, a term in a and a constant
12	£40 000	2	Award 1 mark for correct method
13	$8a$	1	
	$3a + 3$ or $3(a + 1)$	1	
	$a > \frac{3}{5}$	2	Award 1 mark for forming correct inequality and at least 1 correct step towards solution e.g.
14	$4.65 \leq x < 4.75$	2	Award 1 mark for each value

Question	Answer	Marks	Notes and guidance
1	37	1	
	States no and justifies answer e.g. • $3n + 7 = 38$ does not have an integer answer • Shows sequence contains 76 and 79 and so cannot contain 78	2	Award 1 mark for correct method
2	20%	2	Award 1 mark for attempt to convert $\frac{4}{20}$ into a percentage
3	e.g. Whitney sends more texts on average, but the number of texts sent by Huan does not vary as much	2	Award 1 mark for a comment about the mean and 1 for a comment about the range.
4	$x = 34.5°$	2	Award 1 mark for equating $2x - 4$ and 65 and attempting to solve
	$x > 3\frac{1}{2}$ or equivalent	3	Award 1 mark for correct expansion of brackets Award 2nd mark for first correct step to solve resulting inequality
5	e.g. "It makes the increase look very large when it's only a very small percentage change"	1	Any sensible explanation
6	500 m	2	Must include "m" Award 1 mark for attempt to find the perimeter and multiply by 20

7	Correct perpendicular bisector drawn	2	Award 1 mark for appropriate arcs
8	Correct pie chart drawn, with labels	3	Award 1 mark for correct angles found ($162°$, $114°$, $84°$) Award 2nd mark for accurate diagram
	$\frac{9}{20}$ or equivalent	1	e.g. 45%, 0.45 or any equivalent fraction including $\frac{54}{120}$ or $\frac{162}{360}$
	72	2	Award 1 mark for correct method to find the total number of students (180)
9	$40 + \frac{9\pi}{2}$	3	Allow $40 + 4.5\pi$ or any exact equivalent form Award 1 mark for area of trapezium found to be 40 Award 1 mark for substituting $r = 3$ into $A = \pi r^2$ and attempting to halve their answer

	$y = x$	1	
10	Correct rectangle drawn i.e.	2	Award 1 mark for 3 out of 4 points correct or rectangle in correct orientation but in wrong position
11	8 (with workings)	3	No marks for 8 without justification. Award 1 mark for sharing 180 in the ratio 3 : 1 Award 2nd mark for correct method to find number of sides e.g. $\frac{360}{\text{their "45"}}$
12	1.3	3	Award 1 mark for correct final column Award 2nd mark for dividing their total (from correct method) by 20
13	$0, 8 \times 10^{-3}, 2^{-3}, 4^{\frac{1}{2}}, 5 \times 10^{3}$ or $0, 0.008, \frac{1}{8}, 2, 5000$	2	Accept the numbers written in any form Award 1 mark for one misplaced value or correct method to work out at least three of the first four expressions

| 14 | 123 found with full method e.g.
$3x - 6 = 99 - 2x$ (corresponding angles are equal)
Leading to $x = 21$
$99 - 2x = 57$
Base angles in an isosceles triangle are equal,
so $57 + y = 180$ (angles on a straight line add up to 180°) | 3 | Award 2 marks if 123 found but method or reasons incomplete
Award 1 mark for $x = 21°$ correctly found
Award 1 mark for using base angles in an isosceles triangle are equal and angles on a straight line add up to 180° with their value of $99 - 2x$ to find y |