End of Term Assessment Second Half Term Mark Scheme

Q1 a)	Start to separate the shape into two shapes. Area of rectangle 9 x 8 = 72cm (1 mark) Area of triangle 12x5 = 60/2 = 30 (2 marks) Total area 72+30=102cm² (1 mark) Total marks 4
Q2	Blue faces 9 x 5 x 2 = 90cm (1mark) Green faces 5x3x2=30cm + 9x3x2=54cm (1 mark) Total area of Green 84cm. So blue area greater (1 mark) Total marks 3
Q3	Angles in a straight line add up to 180° 180 – 103-49 (1mark) x= 28° (1 mark) Total marks 2
Q4	180 -32 = 148° (1 mark) Total marks 1
b)	Allied angles add up to 180°
Q5	Each reflex angle 360 – 108 = 252° (2 marks) 252 x 5 = 1260° (1 mark) Total marks 3
Q6a)	2/7 (1 mark) Total marks 1
b)	Odd numbers 1,5,3 (1 mark) 3/7 (1 mark) Total marks 2
Q7	All probabilities add up to 1. 1 – 0.14-0.2-0.08-0.13-0.21 = 0.24 (2 marks) 0.24 x 200 = 48 (1 mark) Total marks 3
Q8a)	20 people so median is 10. 10th falls into 25<t≤30 = 7 (1 mark) Total marks 1
b)	Attempt to find the midpoint. Multiply it by frequency. Total midpoint x frequency = 510 (2 marks) 510/20 = 25.5 minutes (1 mark) Total marks 3
Q9a)	a^{13} (1 mark) Total marks 1
b)	$4b^6c^3$ (1 mark) Total marks 1
c)	d^5 (1 mark) Total marks 1
10)	Simplify $\frac{12a^8b^3}{3a^2b^4}$ (1 mark) $4a^b b^{-1}$ (1 mark) Total marks 2
11a)	6.5×10^{-3} (1 mark) Total marks 1
b)	30,000 (1 mark) Total marks 1
12	Neptune 50,000 (1 mark) Mars 6,800 (1 mark)

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	Difference 50,000-6,800 = 43,200 (1 mark) In standard form 4.32 x10^4 (1 mark) Total marks 4
13)	First year 350,000 x 1.03 = £360,500 (1 mark) Second year £360,500 x 1.02 = £367,710 (1 mark) Third year £367,710 x 0.95 = £349,324.50 (1 mark) Value at end of 3 years £349,324.50 Total marks 3
14)	7a – 3 (2 marks) Total marks 2
15)	Correctly identify the sides of the triangle are 13 and 5 (1 mark) Use Pythagoras theorem $c^2-b^2=a^2$ (1 mark) 13^2-5^2 = 144 (1 mark) $\sqrt{144}$ = 12cm (1 mark) Total marks 4