7H Half Term Assessment 1 Solutions

1	(a) 14.86	1	
	(b) 14.8	1	
	(c) 3.4625	1	
	(d) 2.625	1	
2	(a) 14.0175 cm ²	1	
	(b) 18.05 cm	1	
3	(a) 170, 200, 230, 260	1	
	(b) -10, 20, 50 , 80	1	
	(c) -11, -4, 3, 10	1	
4	26 and 27	1	
5	81 + 53 or 83 + 51 or 53 + 81 or 51 + 83	1	
6	(a) 8 cm ²	1	
	(b) 4 cm ²	1	ft half of their answer to 8a
	(c) 16 cm^2	1	ft their answers to 8a and 8b
7	(a) 27	1	
	(b) 36	1	
8	(a) 259	2	M1 for correct method with not one than one
			computational error
	(b) 52.34	2	M1 for correct method with not one than one
			computational error
	(c) 2773	2	M1 for correct method with not one than one
			computational error
	(d) 53	2	M1 for correct method with not one than one
			computational error
	(e) 3.245	2	M1 for correct method with not one than one
			computational error (Note – There must be sight of an attempt to extend the decimal NOT
			leave a remainder)
9	(a) 0.13 0.31 1.13 1.3	1	
		1	
	(b) 250m $\frac{3}{4}$ km 2.5km		
10	(a) 1	1	
	(b) 29	1	
11	(a) 25	1	
	(b) -2	2	M1 for an indication that the sequence goes
12	(a) 12 cm		up in 3s M1 for 16 × 9 OR 144
12	(a) 12 cm	3	
			M1 for $\sqrt{144}$ OR attempt to find a number that squares to give 144
	(b) 18 cm	2	M1 for correct method with not more than
		2	one computational error
13		2	M1 for dividing by 3
1.5	8 5 7	2	A1 for all correct digits
	3 2 5 7 1		
L			

7H Half Term Assessment 2 Solutions

1	(a) 95°	1	
1	(b) 102°	2	M1 for 180 – (39 + 39) or 180 – 78 oe
	(c) 124°	3	
	(C) 124	5	M1 for identifying either the angle 69° or 55°
		2	M1 for69 + 550e www
2	(a) 1.4	3	M1 for sight of 28
			M1 for dividing their '28' by 20
	(b) The modal number of teachers in a car is 1. 14 is	1	oe
	the frequency of that class.		
3	(a) Any fraction in the range $\frac{1}{2} < x < 1$	1	
	(b) $i)\frac{2}{3}$	1	
		1	
	$(ii)\frac{5}{7}$		
4	(a) Angle of 128° drawn correct to $\pm 2^\circ$	2	B1 if correct angle drawn but not labelled
	(b) i) 71° (within ±2°)	1	
	ii) 100° (within ±2°)	1	
5	(a) 12	1	
	(b) 27	1	
6	(a) $x + 12$	1	
	(b) $3a + 9$	1	
	(c) $3m + 10$	1	
7	(a) i) 0.35	1	
	ii) 0.7	1	
	(b) i) 60%	1	
	ii) 2%	1	
8	(a) 36	1	
	(b) 28	2	M for 54 – 26
	(c) The meetings in 2010 were longer than the	1	oe
	meetings in 2009 on average.	1	
	OR		
			oe
	The meetings in 2010 varied more in length than		
0	the meetings in 2009. 7	2	6+1
9	(a) $\frac{7}{8}$ or oe	2	M1 for $\frac{0.11}{8}$ or other correct common
	8		denominator
	9	2	5+4
	(b) $\frac{1}{10}$ or oe		M1 for $\frac{3+1}{10}$ or other correct common
			denominator
	5	2	21-16
	(c) $\frac{1}{24}$ or oe		M1 for $\frac{21}{24}$ or other correct common
			denominator
			Condone attempt to add for M1
10	(a) 37	1	
	(b) 2	1	
11	$x = 36^{\circ}$	2	M1 for a correct method or stating the
			equation $5x = 180$
L	oemeans or equivalent	.	ns follow through

oemeans or equivalent

ft means follow through

www means without wrong working

7H Half Term Assessment 3 Solutions

	/11/10/11/10/11/4550551		
1	(a) 13	2	M1 for $207 \div 15$ or 15×13 oe
	(b) 12	1	
2	690 minutes	2	M1 for 11 × 60 + 30 oe
3	(a) $\frac{2}{6} = \frac{1}{3}$	1	Note that the fraction must be simplified.
	(b) 280	2	M1 for $420 \div 3 = 140$
			$140 \times 2 = 280 \text{ oe}$
4	(a) 21 42 63	1	A1 for any three correct solutions
	(b) 14 and 9	1	
5	(a) 1 20 2 10 4 5	2	B1 for 4 or 5 correct factors
	(b) No because it has more than two factors, 1, 3, 7 and 21.	1	oe
6	(a)	2	B1 for plotting 3 or 4 points correctlyB2 for plotting all 4 points correctly and joining up the coordinates
	(b) parallelogram		
7	(a) 3.63	2	M1 for correct method with not more than
			one computational error
	(b) 1.675	2	M1 for correct method with not more than
			one computational error
8	(a) $\frac{3}{9} = \frac{1}{3}$	1	Note that the fraction does not need to be simplified
	(b) $\frac{4}{9}$	1	
9	(a) 9	1	
	(b) 25	1	
10	(a)	3	B1 for 1 group correctly tallied or correct total
	Height (cm) Tally Frequency		B2 for 3 groups correctly tallied
	$0 \le h < 20 \qquad \qquad \qquad 2$		
	$20 \le h < 40 \qquad $		
	$40 \le h < 60 \qquad \text{JHF III} \qquad 9$]	
	$60 \le h < 80$ $\downarrow \downarrow \downarrow$	╢	
	$80 \le h < 100 \qquad \text{IIII} \qquad 8$]	
	Total 40		
	(b) B2 for all bars correctly drawn	2	B1 for three bars correctly drawn
11	(a) B1 for correctly drawing $y = 3$	1	
	B1 for correctly drawing $x = -2$	1	
	(b) (-2,3)	1	
13	(a) 901	2	M1 for correct method with not more than one computational error
	(b) 90.1	1	
	(c) 9.01	1	
14	(a) B (b) D (c) C (d) A	2	B1 for 2 or 3 graphs matched correctly
15	3	2	M1 for $\frac{9}{10} \div 3$ oe
	$\overline{10}$		10
	means or equivalent		

oe means or equivalent

7H Half Term Assessment 4 Solutions

1	(a) 30%	1	
	(b) £195	2	M1 for a correct attempt to find 75% with not
			more than one computational error
2	50	2	M1 for $x = 3 \times 12 + 2 \times 7 = 36 + 14$ oe
3	1.8125	2	M1 for $0.8125 \div 13 = 0.0625$
			$0.0625 \times 29 = 1.8125$ oe
4	Esha $\frac{7}{50} = 0.14$	1	M1 for a proportion connected to Esha
	50 11 0.157	1	M1 for a proportion connected to Fran
	Fran $\frac{11}{70} = 0.157$	1	B1 for a correct deduction with supporting
	Fran		evidence
5	(a) pentagon	1	
	(b) isosceles triangle	1	
	(c) trapezium	1	
6	(a) B3 for correctly drawn triangle	3	B1 for length of 7cm (\pm 1mm)
			B1 for sight of an attempt at the correct
			construction with one length correctly
			represented (±1mm)
	(b) 58° – 62°	1	ft from their answer to (a)
	(c) $68 + 40 + 62 = 170$ and the angles in a triangle add	1	oe
	up to 180°.		10 00
7	90%	2	M1 for $\frac{18}{20} = \frac{90}{100}$ oe fraction
			20 100
8	(a) $x = 8$	1	
	(b) $x = 48$	1	
	(c) $x = 3$	2	M1 for $8x = 24$ OR correct method with not
			more than one computational error
9		2	A1 for 3 correct values
	-16		
	-5 -11		
	-3 -2 -9		
	-5 2 -4 -5		
10			D2 for the direction of the second
10		2	B2 for shading in any nine squares
			SC1 for shading in six squares
11	(a) They both have two pairs of parallel sides.	1	OR Any other acceptable answer
	OR Their interior angles both add up to 360°.		
	OR Opposite sides in both are equal in length.		
	(b) A rectangle has four right angles.	1	
12	(a) 4	1	
	(b) -9	1	
	(c) 2	1	
13	(a) $10m + 8$	1	
	(b) $xy - x^2$	1	
14	3(x-5) + 7 = 10	1	B1 for any correct statement of the equation
	x = 6	2	M1 for correct method to solve the equation
			with not more than one computational error
15	1:1.75	2	M1 for $7 \div 4 = 1.75$ oe
	means or equivalent	£	ns follow through

oe means or equivalent

ft means follow through