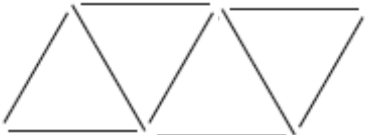


Year 8 Assessment 2 Mark Scheme

Question	Answer	Mark	Notes
1	122	1	cao
2	124	1	cao
3	459	1	cao
4(a)	$\frac{21}{250}$	(1)	M1 for $\frac{84}{1000}$
		2	cao FT their fraction providing it can be simplified
4 (b)	0.625	1	cao
4 (c)	72	2	M1 18×4 oe
5(a)	64	1	cao
5 (b)	2	1	cao
5 (c)	16	1	cao
6	189	(1)	For a correct method to find 35% or 135% of 140 e.g. $35/100 \times 140$ or (35% =) 49 seen
		2	cao
7 (a)	$\frac{7}{100}, 0.12, 0.25, \frac{2}{5}, \frac{15}{20}$	(1)	For any two correct conversions between FDP.
		2	cao condone equivalent values
8	30	(1)	For the difference of 18 seen or $\frac{78-60}{60}$
		2	cao
9	13608	(1)	For an appropriate method of multiplication with no more than one numerical error, but not a place value error in a formal method of multiplication.
		2	cao

10	0.08	1	cao
11 (a)	$\frac{1}{5}$ oe	(1)	For a fraction equivalent to 0.2
11 (b)	5 $\frac{3}{4}$ oe	2 (1)	cao For $\frac{4}{3}$ seen or oe
12		1	cao
13 (a)	23, 26	1	cao
13 (b)	$3n + 5$	(1)	for $3n$ seen
13 (c)	Valid reason	2 1	cao Eg It's the 20 th (term) $3 \times 20 + 5$ Listing all the terms up to 65 with no errors
14	13	1	cao
15	$9x + 7$	1 (2)	For $4x + 12$ or $5x - 5$ cao
16 (a)	Adam = 20 , Cameron = 35	(1)	$15 \div 3 (= 5)$ or £35 or £20 seen
16 (b)	$\frac{20}{55}$ or equivalent	2 1	Correct answer only. oe FT their answer where $\frac{\text{Adam}}{\text{Total}}$
17	Sam with working	(1) 2	Either $(\frac{159}{300} =) 53\%$ or $(\frac{13}{25} =) 52\%$ or a pair of fractions with common denominators with at least one numerator correct.

			Sam with fully correct percentages. (award 0 marks if no working shown)
18 (a)	$\frac{120}{480}$	(1) (1) 3	480 ÷ (3+5) or 60 or 180 or 300 "180" × 0.5 or 90 or "300" ÷ 10 or 30 or 120 oe
19	1 : 1.5	1	1.5 oe
20 (a)	26	(1) 2	List of at least three square or three cube numbers seen, or 25 and 27 seen. cao
20 (b)	1 or 64	1	cao
21	3	(1) 2	For attempt to start process of prime factor decomposition. Accept $2^3 \times 7$
22	3	(1) 2	For A = 6 or B = 2 (can be implied by working ie $6 + 2 = 8$ or $6 - 2 = 4$) cao
23	70	(1) 2	For 80% seen or attempt to divide 56 by any factor of 80 (except 1) or 56/0.8 cao

Extension Questions

Q1

Q	Answer	Mark	Comment
	17	(1) 2	For noting this is pattern 6 OR for a clear list of numbers of hexagons 4, 9, 14, 19, 24, 29, ... OR for white and grey: white: 2, 5, 8, 11, 14, 17, ... grey: 2, 4, 6, 8, 10, 12, ... cao

Q2

Q	Answer	Mark	Comment
a	$n = 5: 4 \times 5^2 = 100$ $n = 20: 4 \times 20^2$ $= 1600$	1 1	
b	-29 and -42	(1) 2	3, -2, -9, -18, -29 , -42 First differences: -5 -7 -9 -11 -13 Second differences: -2 -2 -2 -2 (for finding second differences, even if incorrect)

Q3

Q	Answer	Mark	Comment
	2.48×10^{-3}	1	cao

Q4

Q	Answer	Mark	Comment
a	30 : 42 : 7	(1)	Multiply to create a common value for b
		2	oe
b	42/79	1	cao