

Mark Scheme (FINAL)

Functional Skills Mathematics Level 2 (MAT02)

Set 1

Question	Process	Mark	Marker type	Evidence
Q2	Works with area	1 or	Auto	A house rectangle with a side either 6 (3 sqs), 8 (4 sqs), 12 (6 sqs) or 16 (8 sqs)
		2		Draws rectangle with correct area 6 by 16 (3 sqs by 8 sqs) or 12 by 8 (6 sqs by 4 sqs)
	Works with scale	1		Draws rectangle (any size) at least 4 m (2 sqs) from the road
Total marks for question		3		

Question	Process	Mark	Marker type	Evidence
Q3	Uses formula by substitution or reverse check	1 or	Human	$(6 - 1) \times 25 (=125)$ OR
		2		$400 - 275 (=125)$ '125' + 275 (=400) OR $400 = 25(6-1) + 275$ '125' \div 25 (=5)
	Decision made, must have achieved first process mark. and have calculated a value to use for comparison	1		e.g. yes, 6 gives 400 F OR yes, $5+1=6$
Total marks for question		3		

Question	Process	Mark	Marker type	Evidence
Q4	<p>Begins to interpret problem</p> <p>Improves solution</p>	<p>1 or</p> <p>2 or</p> <p>3</p>	Auto	<p>Drags in one treatment from each session, at least one total is shown and correct but does not need to be inside the constraints</p> <p>Totals both time and cost correctly but one is outside constraints OR both inside constraints but one is wrongly added</p> <p>Fully correct solution</p> <p>Eyebrow, facial and aroma bliss (125 mins and £130)</p> <p>Eyebrow, salt scrub and aroma bliss (125 mins and £128)</p>
Total marks for question		3		

Question	Process	Mark	Marker type	Evidence
Q5	Works with area	1	Human	7.5 x 5.5 (= 41.25)
	Converts weight to be same units	1		1.5 kg = 1500g OR 35g = 0.035kg may be seen in a calculation
	Process to calculate sand required or box coverage	1		'41.25' x '0.035'(=1.44375 or 1443.75) OR '1500'÷35(=42.857..) or 1.5 ÷ '0.035' (= 42.857..) digits 35 or digits 15 must be present in the calculation
	Correct decision	1		clicks yes and correct evidence in working box. Yes with [42.8, 42.9](m ²) and 41.25(m ²) Yes with [1.43, 1.45](kg) and 1.5(kg) OR [1443, 1445](g) and 1500(g)
Total marks for question		4		

Question	Process	Mark	Marker Type	Evidence
Q6	Works with percentage	1 or	Human	0.2x139.99[=27.99, 28] o.e. OR 0.8x139.99[=111.99, 112.01]
	Finds price of mobile	1 or		64.99÷3[=21.44, 21.67] OR
	Finds price of printer	2		64.99÷3x2 [=42.88, 43.54] condone use of 0.3 for 1/3 provided 45.5 or 45.49 seen [=42.88, 43.54]
	Chooses correct combination based on at least one percentage mark(Q6a) and at least one fraction mark(Q6c) awarded	1		Eg Radio and printer
Total marks for question		5		

Question	Process	Mark	Marker Type	Evidence
Q7	Positions bars	1	Auto	3 squares from the left
	Positions bars	1		5 squares from the right
Total marks for question		2		

Question	Process	Mark	Marker Type	Evidence
Q8	Uses conversion factor	1 or	Human	$59 \times 0.6256 (=36.91\dots)$ OR $40 \div 0.6256 (=63.938\dots)$
	Gives converted amount	2		[36.90, 37] OR [63.90, 64]
	Selection based on first mark for conversion factor awarded	1		(\$)59
Total marks for question		3		

Question	Evidence	Mark	Marker Type	Notes
Q9	Works with total points scored in games so far OR process to find mean difference	1	Human	$20 \times 42.7 (=854)$ OR $43.5 - 42.7 (=0.8)$
	Works with total points required OR Finds number of extra points needed per game	1		$22 \times 43.5 (=957)$ OR $43.5 \times 20 (=870)$ OR $'0.8' \times 20 (=16)$
	Finds total points needed	1		103 cao (or any two numbers that add to 103)
Total marks for question		3		

Question	Evidence	Mark	Marker Type	Notes
Q10	Converts quantities to same units Finds scale factor Finds number of teaspoons	1 1 or	Human	Change 1.5 litre to 1500 ml or 250 ml to 0.25litre or 250ml to $\frac{1}{4}$ litre could be seen within a calculation $1.5 \div '0.25' (= 6)$ or $'1500' \div 250 (= 6)$ or $6 \times \frac{1}{4}$ in $1\frac{1}{2}$ or 1.5 OR $250 \div 2 = 125\text{ml}$ 12 teaspoons cao
Total marks for question		3		

Question	Evidence	Mark	Marker Type	Notes
Q11(a)	Interprets problem correctly, begins to address features	1 or	Auto	Any three of: Luke 13 boxes selected Jit 10 boxes selected Mel 8 boxes selected Kat minimum 3 boxes selected Three staff between 7 am to 9 am Three staff between 12.30 pm to 2 pm
	Improves staff rota	2 or		Any four of: Luke 13 boxes selected Jit 10 boxes selected Mel 8 boxes selected Kat minimum 3 boxes selected Three staff between 7 am to 9 am Three staff between 12.30 pm to 2 pm
	Fully correct staff rota	3		All of: Luke 13 boxes selected Jit 10 boxes selected Mel 8 boxes selected Kat from 12:30 pm to 2 pm Three staff between 7 am to 9 am Three staff between 12.30 pm to 2 pm Luke's break between 10:30 am and 12 pm
Q11(b)	Finds min number of hours for Kat ft	1		1.5 hours ft counting the boxes Kat's been clicked
Total marks for question			4	

Question	Evidence	Mark	Marker Type	Notes
Q12	Calculate amount to spend on balloons OR amount left to spend Calculates no. of cupcakes Chooses number of packs to buy Calculates cost of party bags or Finds how many bags Pat can afford Ft decision based on at least 3 previous marks scored working Must see valid statement or total spent or total left for this mark	1 1 or 2 1 1	Human	$46 \times 5 (=230)$ oe. OR $260 - 208 (=52)$ $26 \div 6 (=4.33..)$ or $52 \div 6 (=8.66..)$ 5 to 9 whole packs with some justification $26 \times 1.60 (=41.60)$ OR $'38.90' \div 1.6 (=24.31)$ e.g yes, if she buys one cupcake per child (5 packs) OR '49.90' seen OR '2.10' left over yes, if she buys 6 packs of cupcakes OR '51.10' seen no, if she buys more than 6 packs of cupcakes no, for 7 or 8 packs cupcakes she can only afford 25 party bags no, for 9 packs cupcakes she can only afford 24 party bags
Total marks for question		5		