FutureQuals™
INSPIRING LEARNING AND SKILLS

Maths Level 2 Mark Scheme
Set 3 - Sample

Task 1				
Question	**Process**	**Marks Awarded**	**Answer**	**Mark**
1	Calculates complete room or rectangles within		2.5 x 3.5 OR 2.5 x 1.5	
	Finds answer		8.75 OR 3.75	
	Calculates and finds bath area OR another rectangle		1 x 2.5= 2.5 OR 1x1 = 1	
	Calculates area to be tiled		answer a – answer c OR answer a + answer c (NOTE: all 3 methods are included in marks a,b and c)	
	Finds answer		6.25 m^2	
	Finds number of tiles in 1 m^2		4 (2 x 2)	
	Calculates number of tiles required		answer e x answer f	
	Finds number of tiles required		25	
	Concludes		Yes, 3 packs of tiles will be enough	
	Checks answer		Correctly checks an answer(a,c,d,f,g) by inverse method, estimation or other suitable method	

Task 1				
Question	**Process**	**Marks Awarded**	**Answer**	**Mark**
2	Calculates proportion	1 R	7 ÷ 1.5 OR 29 ÷ 6.95 OR TO FIND 1 m^2 : 6.96 ÷ 1.5 OR 29 ÷ 7	k
	Finds answer	1 A	4.67 (2dp) OR 4.17 (2dp) OR 4.64 (2dp) OR 4.14 (2dp)	l
	Makes comparison	1 R/A	4.67 x 6.95 = £32.46 (compared with £29) OR 4.17 x 1.5 = 6.26 (2dp, area covered by Supastik for £29) OR Supastik costs 4.64 per m^2 OR Moreflaw costs 4.14 per m^2	m
	Concludes	1 In	Moreflaw is the best value for money. (note: the capacities of the products are irrelevant)	n

Task 2				
Question	**Process**	**Marks Awarded**	**Answer**	**Mark**
3	Extracts data from graph	1 In OR 2 In	Any 3 from 250, 238, 244, 236, 226 All 5 of above.	a a b
	Finds sum of data	1 R/A	1194 OR answer a added (all 5 pieces of data)	c
	Divides	1 R/A	answer c ÷ 5	d
	Finds mean	1 A	238.8	e
	Converts	1 R	3 x 60 or 60+60+60 OR 180 seen	f
	Finds time in minutes and seconds	1 A	3 mins 58.8 secs (accept 3' 59”)	g
	Compares times	1 In	Liam is third fastest	h
	Calculates average speed	1 R	1500 ÷ 238.8 (accept 239)	i
	Finds average speed	1 A	6.3 m/s (1dp) Accept 6.28	j
	Concludes	1 In	Yes, he can qualify for the team.	k
4	Calculates no. of times of a top 3 finish	1 R	100 ÷ 12 OR 7 ÷ 12 OR 58/100 (as an approximation)	l
	Finds answer	1 R/A	58 ÷ answer l OR 0.5833r OR 58.33% OR 29/50 (approximation cancelled down)	m
	Rounds answer	2 In	7/12 (7 times top 3 finish)	n o

Task 3				
Question	**Process**	**Marks Awarded**	**Answer**	**Mark**
5	Converts weight	1 R/A	5kg =5000g OR 100g = 0.1kg	a
	Calculates no. of tubes	1 R	5000 ÷ 100 OR 5 ÷ 0.1	b
	Finds answer	1 A	50 tubes	c
	Calculates no. of sweets in each tube	1 R	750 ÷ 50	d
	Finds no. of sweets in each tube	1 A	15	e
	Uses formula	1 R	2.5 x 2.5 OR squared another figure squared with a correct answer	f
	Finds r squared	1 A	6.25	g
		1 R/A	answer f x 3.14	h
	Finds denominator	1 A	19.625	i
		1 R/A	13 x answer d	j
	Finds numerator	1 A	195	k
	Calculates height	1 R/A	answer j ÷ answer h	l
	Find height	1 A	9.94 cm (2dp)	m
	Calculates no. of tubes per length OR calculates total length OR total tube required	1 R	60 (0.6m) ÷ 9.94 OR 12 x 0.6 OR 12 x 60 OR 50 x 9.94	n
	Finds no. of tubes per length OR finds total length	1 A	6.04 (2dp) OR 6 tubes per length 7.2m OR 720cm	o
	Finds no. of tubes available and concludes	1 In	72 AND yes, he has enough tubing.	p