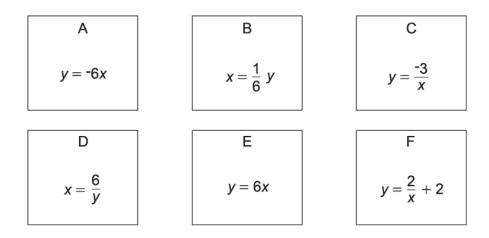
1. Darren says

I can run 100 m in 15 seconds, so I should be able to run 800 m in 120 seconds.

Do you think that he would take more or less than 120 seconds to run 800 m? Explain your answer, with reference to any assumptions Darren has made.

[3]

2. Six equations are shown below, each labelled with a letter.



Choose from the letters above to make this statement true.

Equation _____ and equation _____ each show *x* is inversely proportional to *y*.

[2]

3(a).



Harry needs dollars to go on holiday. He can buy \$50 for £40.

How much will \$720 cost at the same rate?

£_____[2]

(b). Tony returns from holiday with these notes.

Note	Number of notes
€50	2
€20	4
€10	9
€5	12

The exchange rate is $\pounds 1 = \pounds 1.17$.

Work out how much he will get in total when he changes these notes.

£_____[4]



q is directly proportional to r. q is 68 when r is 20.

Work out q when r is 25.

END OF QUESTION PAPER

Q	Question		Answer/Indicative content	Marks	Guidance	
1			He has assumed he can run 800 m at the same speed as he can run 100 m, but he will run 800 m at a slower speed, therefore it will take him more than 120 s	3	B1 for correct reference to Darren's assumption OR $\frac{100}{15} = \frac{800}{120}$ soi B1 for 'his speed will be slower over 800 m' oe	
			Total	3		
2			C and D	2	B1 for each	
			Total	2		

Question		I	Answer/Indicative content	Marks	Guidance	
3	a		576	2	-	eg [\$]50 is [£][40] (process) 100 is [80] (× 2) 200 is [160] (×2) 20 is [16] (÷ 10) And sum 200, 200, 200, 100 and 20 And sum 200, 200, 200, 200, 200, 200, 200, 200
	b		282 or 282.03 or 282.04 or 282.05 final answer	4	M1 for multiplying four note values by the correct number of notes soi by values shown in final column of scheme	Find total of euros $50 \times 2 (= 100) \div$ 1.17 (=85.47) $20 \times 4 (= 80) \div 1.17$ (=68.37) $10 \times 9 (= 90) \div 1.17$ (=76.92) $5 \times 12 (=60) \div 1.17$ (=51.28)

Question	Answer/Indicative content	Marks	Guidance	
			M1 for dividing a value in euros by 1.17 soi by values shown in final column of scheme	100 + 80 + 90 + 60 = [€]330 330 ÷ 1.17 (=282.05)
			M1 for adding four sums of money of the same currency (one from each note value)	Find each denomination in £ $50 \div 1.17 (=42.73$ 42.73 or 42.74) $20 \div 1.17 (=17.09$ 17.09 or 17.10) $10 \div 1.17 (=8.54$ 8.54 or 8.55) $5 \div 1.17 (=4.273$ 4.27 or 4.28) $42.74 \times 2 (=85.48)$ $17.09 \times 4 (=68.36)$ $8.55 \times 9 (=76.95)$ $4.27 \times 12 (=51.24)$ Total = 282.03
			Examiner's Comment In this part, few candi this question, at least treated as a mean fro A large number of can change each denomin pounds, then multiply number of notes and rather than find the to and then change. Wh methods were used, to significant number of A common error was the end rather than di candidates rounded in accuracy marks. It was examiners for candidates clearly show, stages in could easily be follow	dates realised that at the start, could be m a frequency table. Indidates chose to nation of note to each result by the add these values, tal number of euros ere inefficient there were also a numerical errors. to multiply by 1.17 at vide. A number of nappropriately, losing as helpful to ates to label, or in the method so this
	Total	6		

Q	uestion	Answer/Indicative content	Marks	Guidance	
4		85	2	M1 for $\frac{68}{20}$ soi by 3.4 Examiner's Comments Many candidates scored the mark in part (a) as they understood that the line should start from, or go through, the origin. In part (b) some candidates had a good understanding of proportion and the need to find a scale factor (<i>k</i>). Those that obtained 3.4 invariably went on to correctly give the final value as 85. Incorrect responses usually involved some manipulation of the three figures given in the question and invariably arrived at 68 – 20 + 25 = 73 as the answer. This question was not attempted by a significant number of candidates.	
		Total	2		