1. Angus thinks of a number.
If he cubes his number and then adds 9, he gets 17.

What number is he thinking of?

(b) _____ [2]

2. Mikolaj works out that 770 ÷ 22 = 35.

Write a multiplication that will check his division is correct.

[1]

3. Complete the following.

(i) −5 + _____ = −9

[1]

(ii) £0.67 + _____ p = £1

[1]

4. Maja and Charlie are playing a ‘think of a number’ game.

Maja says:

I think of a number.
I add 4.
I multiply the result by 6.
The answer is 72.

Find the number that Maja thought of.

_____ [2]

5. A number is multiplied by 8.
The answer is positive and less than 8.

Find a possible number and complete the calculation.

8 × _____ = _____ [2]

6(a). 5 + 7 = 12

Using this fact, write two different subtractions.
You can **only** use the numbers 5, 7 and 12.

□ − □ = □

□ − □ = □

[2]

(b). Ana has some money.
She spends half of it buying a coat.
She gives half of what is left to her mum.
Ana now has £20.

How much money did Ana have to start with?

£ _____ [2]

7. Complete the following statements.

(i) $6 - \square = -2$

[1]

(ii) $-3 - \square = 8$

[1]

END OF QUESTION PAPER

Question			Answer/Indicative content	Marks	Part marks and guidance	
1			2	2	M1 for 8 seen	
			Total	2		
2			22 × 35 = 770 or 35 × 22 = 770	1		Examiner's Comments Almost all candidates were able to answer this question on using checking strategies correctly. Some less able candidates gave answers such as 5 × 7 = 35 which did not relate to the original values in the question.
			Total	1		
3		i	–4	1		Examiner's Comments This was very well answered.
		ii	33	1		Condone £0.33 Examiner's Comments Quite a number of candidates gave the answer as 0.33p instead of 33p and overlooked the units given in the problem.
			Total	2		
4			8	2	M1 for 12 or for evidence of ÷ 6 then – 4 Examiner's Comments There were many correct answers.	
			Total	2		
5			multiply by n, where $0 < n < 1$	1		

Question			Answer/Indicative content	Marks	Part marks and guidance	
			their n × 8 evaluated	1FT	For FT must have $-1 < n < 1$ and $n \neq 0$ **Examiner's Comments** This part proved to be considerably more difficult. Most candidates scored 0 whilst nearly all the rest scored 2. It was very rare to award a part mark. …x 0.5 = 4 was the most common correct response, while common errors were made by multiplying 0 (giving an answer that was not positive) or 1 (giving an answer that was not less than 8).	
			Total	2		

Question			Answer/Indicative content	Marks	Part marks and guidance	
6	a		12 – 7 = 5 12 – 5 = 7	1 1	**If 0 scored SC1** for one correct calculation involving ±12, ±5, ±7 Examiner's Comments Many wrote correct responses. A few used negative numbers such as 7 – 12 = –5.	
	b		80	2	**M1** for $\frac{1}{4}$ or 4 linked to 20 Or **B1** for 40 seen Examiner's Comments This was well answered with many scoring 2 marks. Some scored 1 mark for reaching 40.	4 may be 2 × 2 or $\frac{1}{4}$ may be $\frac{1}{2} \times \frac{1}{2}$
			Total	**4**		
7		i	8	1		
		ii	–11	1	Examiner's Comments Part (i) was answered very well but part (ii) caused difficulty and required a more problem solving approach. The common error was to give the answer 11 rather than –11.	
			Total	**2**		