



## Mark schemes

1.

Award **TWO** marks for all three numbers correct as shown:

- a multiple of 9 

2	7
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 OR 

7	2
---	---
- a square number 

2	5
---	---
- a factor of 96 

1	2
---	---

If the answer is incorrect, award **ONE** mark for two numbers correct.

Up to 2

[2]

2.

1, 2 and 5

*Numbers may be given in any order.*

[1]

3.

Award **TWO** marks for the correct answer of 60 **AND** 90

*Numbers may be given in either order.*

If the answer is incorrect, award **ONE** mark for:

- both numbers correct and one or more additional factors of 180

eg 30, 45, ~~60~~, ~~90~~

OR

- both numbers correct and one number which is not a factor of 180

eg ~~60~~, ~~90~~, 100

OR

- one number correct and none incorrect.

eg ~~60~~

Up to 2

[2]

4.

2

5

10

20

OR

4

5

10

20

*Accept the four numbers listed in any order.*

U1

[1]

5.

Award **TWO** marks for the correct answer of 8010

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg:

- $8000 \div 45 =$  wrong number  
then wrong number rounded to the nearest whole number

*Accept 178 for **TWO** marks*

*Accept for **ONE** mark 7965 **OR** 177 as evidence of appropriate method*

OR

- a 'trial and improvement' method, eg  
 $150 \times 45 = 6750$   
 $200 \times 45 = 9000$   
 $175 \times 45 = 7875$

*A 'trial and improvement' method must show evidence of improvement.*

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

6.

Any three-digit number that is a multiple of 9, eg:

207

*If correct, the sum of the digits will be 9 or 18.*

*If boxes are blank, accept answer elsewhere on the page.*

[1]

7.

Two numbers circled as shown:

74	72	73	74	75
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1

An explanation which recognises that 1003 is not a multiple of 3, eg:

- 'Because 1003 is not divisible by 3'
- 'Because 1003 is not a multiple of 3'
- 'Because 1003 is not in the 3 times table'
- 'Because I divided 1003 by 3 and there was a remainder'
- 'Because 1003 + 3 has a decimal answer'
- 'Because  $1 + 0 + 0 + 3 = 4$ , and 4 is not a multiple of 3'
- 'Because 1003 has a digital sum of 4'
- 'Because 1002 is the nearest in the 3 times table'
- 'Because 1000 is not divisible by 3'
- 'Because 999 is divisible by 3'.

*Do not award the mark if additional incorrect numbers are circled.*

*Accept alternative unambiguous indications, eg ticks, crosses.*

*No mark is awarded for circling 'No' alone.*

*Do not accept vague or arbitrary explanations, eg:*

- 'Because 1003 ends in 3'
- 'Because 1003 is in the third column'
- 'Because if you keep going in 3s you will go past it'.

*If 'Yes' is circled but a correct unambiguous explanation is given, then award the mark.*

U1

[2]

8.

Award **TWO** marks for the correct answer of 378

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg:

- 366 369 372 375 378 381  
364 371 378 385

OR

- Factorisation/calculator method, eg

$$7 \times 3 = 21$$

$$21 \times 18$$

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2  
U1

[2]

9.

Any 3-digit number that is a multiple of 14, eg:

3	0	8
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*Any acceptable answers will be even numbers which divide by 7*

**Do not** accept '0' in the hundreds box.

Only **three digit** numbers are acceptable.

[1]