

8300

GCSE MATHEMATICS

Foundation tier – Questions by Topic

Number

Finding factors and using divisibility tests

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

- In all calculations, show clearly how you work out your answer

For questions 1 to 31 you must **NOT** use a calculator.



Q1.

Circle the answer to $150 \div 5$
3 30 300 3000

(Total 1 mark)

Q2.

(a) Work out $9174 \div 11$

(2)

(Total 2 marks)

Q3.

Work out $27 \div 0.6$

(Total 1 mark)

Q4.

68 students go on a school trip.
Each student will be given a bottle of water.
Bottles are available in packs of 10.
How many of these packs are needed?

(Total 3 marks)

Q5.

Work out $3.65 \div 5$
Give your answer as a decimal.

(Total 2 marks)

Q6.

Put numbers in the boxes to make the calculations correct.

(b)

$$6 \times \boxed{} = 96$$

(1)

(c)

$$\boxed{} \div 9 = 15$$

(1)

(Total 2 marks)

Q7.

Work out $64.32 \div 0.12$

(Total 2 marks)

Q8.

Work out $\frac{3.6}{0.4}$

Circle your answer.

90

9

0.9

0.09

(Total 1 mark)

Q9.

x is a positive integer.

$35 \div x$ is a positive integer.

Work out the **four** possible values of x .

(Total 2 marks)

Q10.

A school took £832 selling tickets.

Each ticket was sold for £4.

How many tickets were sold?

(Total 2 marks)

Q11.

(b) Work out $2843.61 \div 7$

(2)

(Total 2 marks)

Q12.

(a) Work out $1.86 \div 6$

(1)

(Total 1 mark)

Q13.

Work out $25.68 \div 12$

(Total 2 marks)

Q14.

278 students are going on a trip.

At least one teacher must go with every 15 students.

Work out the smallest number of teachers who must go.

(Total 3 marks)

Q15.

Work out $280 \div 7$

(Total 1 mark)

Q16.

Megan has a part-time job.

She earns £8 an hour.

She wants to buy a concert ticket costing £40.

How many hours does she need to work to earn enough to buy the ticket?

(Total 2 marks)

Q17.

Circle **all** the numbers that have 11 as a factor.

121 122 132 133

(Total 1 mark)

Q18.

(a) Circle the multiple of 7

13 22 27 35

(1)

(b) Circle the factor of 36

8 12 19 72

(1)

(Total 2 marks)

Q19.

(a) Write down the **three** multiples of 30 between 100 and 200

(2)

(b) Circle the number in the list that is **not** a factor of 30

2 3 5 6 8

(1)

(Total 3 marks)

Q20.

(a) Work out the Highest Common Factor (HCF) of 24 and 42

(2)

(Total 2 marks)

Q21.

(a) Circle the factor of 100.

8 11 15 16 18 20

(1)

(b) Circle the multiple of 9.

8 11 15 16 18 20

(1)

(Total 2 marks)

Q22.

Write down **all** the factors of 20

(Total 2 marks)

Q23.

(a) Write down **two** multiples of 5.

(1)

(b) Write down **two** factors of 18.

(1)

(Total 2 marks)

Q24.

- (c) Circle a number that is a factor of 900

25 27 31 32 44 45

(1)

(Total 1 mark)

Q25.

- (a) Circle the multiple of 9

6 12 13 16 20 27

(1)

- (b) Circle the factor of 40

6 12 13 16 20 27

(1)

(Total 2 marks)

Q26.

- (a) Write down **all** the factors of 18

(2)

(Total 2 marks)

Q27.

Write down **one** factor of 10

(Total 1 mark)

Q28.

- (c) Why is 9 a factor of 18?

(1)

(Total 1 mark)

Q29.

- (a) (i) Write down a multiple of 6 that is greater than 20.

(1)

- (ii) Write down a factor of 20 that is less than 6.

(1)

(Total 2 marks)

Q30.

- (a) Circle the **two** multiples of 7

6 10 16 21 25 27 32 35

(2)

- (b) Circle the **two** factors of 30

6 10 16 21 25 27 32 35

(2)

(Total 4 marks)

Q31.

- (a) Circle the multiple of 9.

8 10 13 16 20 27

(1)

- (b) Circle the factor of 30.

8 10 13 16 20 27

(1)

(Total 2 marks)

For questions 32 to 43 you may use a calculator.



Q32.

Which of these numbers has **exactly four** factors?

Circle your answer.

4

8

12

16

(Total 1 mark)

Q33.

Circle the number that is a factor of 10

7

6

5

4

(Total 1 mark)

Q34.

Here are some numbers.

18

32

42

68

81

(a) Which number is a multiple of 7?

(1)

(d) Which number is a factor of 64?

(1)

(Total 2 marks)

Q35.

Write down **all** the factors of 12

(Total 2 marks)

Q36.

Complete the boxes using
a factor of 12
and a factor of 40

$$\boxed{} \times \boxed{} = 30$$

(Total 2 marks)

Q37.

Write down all the factors of 18

(Total 2 marks)

Q38.

Circle the factor of 32

16

12

3

64

(Total 1 mark)

Q39.

Which of these numbers has **exactly three** factors?

Circle your answer.

3

4

5

6

(Total 1 mark)

Q40.

Write down **all** the factors of 45

(Total 2 marks)

Q41.

Which of these numbers has **exactly** two factors?

6

7

8

9

(Total 1 mark)

Q42.

(a) Use your calculator to work out the **two** numbers in the list that are multiples of 7.

Circle your answers.

651

787

489

602

414

(2)

(b) Use your calculator to work out the **two** numbers in the list that are factors of 1001.

Circle your answers.

3

7

9

11

17

(2)

(Total 4 marks)

Q43.

a is a common factor of 72 and 120

b is a common multiple of 6 and 9

Work out the highest possible value of $\frac{a}{b}$

(Total 4 marks)