JP Maths Revision

Attempt the paper before watching the solutions https://www.youtube.com/@JPMathsRevision

Foundation Tier

Factors, Multiples and Primes

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The marks for **each** question are shown in brackets- *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

1. (a) Write down all the factors of 12

1, 2, 3, 4, 6, 12

(1)

(b) Write down all the factors of 20

1, 2, 4, 5, 10, 20

(1)

(c) Write down all the factors of 35

1, 5, 7, 35

(1)

(Total for Question 1 is 3 marks)

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2. (a) Write down the first 5 multiples of 4

4, 8, 12, 16, 20

(1)

(b) Write down the first 6 multiples of 6

6, 12, 18, 24, 30, 36

(1)

(c) Write down the first 5 multiples of 9

9, 18, 27, 36, 45

(1)

(Total for Question 2 is 3 marks)

3. Find all the common factors of 18 and 24

2, 3, 6

(Total for Question 3 is 2 marks)

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4. A number is a multiple of both 4 and 6.

Write down the smallest possible number.

12

(Total for Question 4 is 2 marks)

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5. Write down all the prime numbers less than 20

2, 3, 5, 7, 11, 13, 17, 19

(Total for Question 5 is 2 marks)

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6. Which of these numbers are prime?

21, 29, 31, 33, 37, 39

29, 31, 37

(Total for Question 6 is 2 marks)

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7. Write down all the prime numbers between 20 and 40

23, 29, 31, 37

(Total for Question 7 is 2 marks)

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8. A student says,

"All odd numbers are prime numbers."

Is the student correct?

Explain your answer

No, 2 is an even number that only has two factors

(Total for Question 8 is 1 mark)

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9. Find two prime numbers that add up to 20

3 + 17 = 20

(Total for Question 9 is 2 marks)

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10. Two buses leave a station.

Bus A leaves every 6 minutes
Bus B leaves every 8 minutes

Both buses leave together at 9:00am.

At what time will they next leave together?

LCM (6, 8) = 24 mins

9:24

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(Total for Question 10 is 3 marks)

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11. A teacher has 18 pencils and 30 pens.

She wants to make identical packs using all the items.

What is the greatest number of packs she can make?

HCF (18, 30) = 6

6 packs with 3 pencils + 5 pens

6

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(Total for Question 11 is 3 marks)