

Multiples, Factors, Primes

1. (a) Write down two multiples of 4.

Answer and (1)

(b) Write down two multiples of 7.

Answer and (1)

(c) Write down a number which is a multiple of both 4 and 7.

Answer (1)

(Total 3 marks)

2. (a) Find all the factors of 12.

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Answer (2)

(b) Write down the factors of 12 which are also factors of 30.

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Answer (3)

(Total 5 marks)

3. (a) Write down all the factors of 8.

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Answer (2)

(b) Write down any 3 multiples of 8

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Answer (2)

(c) The first four square numbers are 1, 4, 9, 16.
Write down the ninth square number.

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Answer (1)

(Total 5 marks)

4. From this list of numbers

37 12 15 21 24 32 36 42

(a) write down the multiples of 8

Answer (2)

(b) write down the factors of 45

Answer (2)

(c) write down the square number.

Answer (1)

(Total 5 marks)

5. Here is a list of numbers

6 8 11 15 25 28 30 33

From this list, write down

(a) a multiple of 7,

Answer (1)

(b) the two factors of 24,

Answer (2)

(c) a square number,

Answer (1)

(d) a prime number.

Answer (1)

(Total 5 marks)

6. Tom, Sam and Matt are counting drum beats.

Tom hits a snare drum every 2 beats.

Sam hits a kettle drum every 5 beats.

Matt hits a bass drum every 8 beats.

Tom, Sam and Matt start by hitting their drums at the same time.

How many beats is it before Tom, Sam and Matt **next** hit their drums at the **same** time?

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Answer beats (Total 2 marks)

7. (a) Express 36 as a product of its prime factors.

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Answer (3)

(b) Find the Highest Common Factor (HCF) of 36 and 60.

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Answer (2)

(Total 5 marks)

8. (a) Express 144 as the product of its prime factors.
Write your answer in index form.

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Answer (3)

(b) Find the Highest Common Factor (HCF) of 60 and 144.

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Answer (2)

(Total 5 marks)

9. 36 expressed as a product of its prime factors is $2^2 \times 3^2$

(a) Express 45 as a product of its prime factors. Write your answer in index form.

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Answer (3)

(b) What is the Highest Common Factor (HCF) of 36 and 45?

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Answer (1)

(c) What is the Least Common Multiple (LCM) of 36 and 45?

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Answer (1)

(Total 5 marks)

10. (a) a and b are prime numbers.

$ab^3 = 54$ Find the values of a and b .

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Answer $a = \dots\dots\dots$, $b = \dots\dots\dots$ (2)

(b) Find the Highest Common Factor (HCF) of 54 and 135.

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Answer (2)

(Total 4 marks)