

FACTORS AND MULTIPLES

4

Q1. Without actual division, show that 23 is a factor of 230046.

Answer: _____

Q2. Match the following:

5 th multiple of 17	7
Greatest prime factor of 8	3
Smallest odd prime number	85
The only prime factor of 343	2

Q3. From the given pair of numbers identify the twin primes:

(3, 5), (11, 13), (4, 9), (8, 25), (6, 25), (5,7), (7, 9)

Answer: _____

Q4. Give an example to prove each of the following statements:

a. Two prime numbers are always co-prime.

Example: _____

b. Two co-primes may or may not be both prime numbers.

Example: _____

Q5. Write 3 prime numbers whose sum is 33.

Answer: _____

Q6. Replace * in $7 * 34$ to make the number divisible by 9. Will the number be divisible by 3 also?

Answer: _____, _____

Q7. Find out whether the following numbers will be prime or composite?

a. A 2 digit number ending with 5

b. A 4 digit number ending with 0

c. A 2 digit number between 10 and 20 with 3 in the ones place

Q8. Two containers contain 2211 litres of and 5025 litres of kerosene respectively. Find the maximum capacity of a container that can measure the kerosene of the two containers exact number of times.

Answer: _____

Q9. Can two numbers have HCF equal to 16 and LCM equal to 28? Give reason for your answer.

Answer: _____

Q10. The HCF and LCM of two numbers is 6 and 72 respectively. If one number is 24 find the other number.

Answer: _____

ANSWERS

1. $230046 = 230000 + 46 = 23(10000 + 2) = 23 \times 10002$

5 th multiple of 17	85
Greatest prime factor of 8	2
Smallest odd prime number	3
The only prime factor of 343	7

3. (3, 5), (5, 7), (7, 9), (11, 13)

4. a. e.g.: (3,5), (7, 11)

b. e.g. : (4, 25) ; (3,25); (3,7)

5. 23, 7, 3

6. 7434, Yes

7. a. Composite

b. Composite

c. Prime

8. 201 litres

9. No, 16 is not a factor of 28.

10. 18