Playing with Numbers Ex 2.3 Q13

Answer :

(i) The possible missing twins for 29 are 27 and 31. Since 31 is a prime and 27 is not, 31 is the missing twin.

(ii) The possible missing twins for for 89 are 87 and 91. Since 87 and 91 are not primes, 89 has no twin.

(iii) The possible missing twins for 101 are 99 and 103. Since 103 is a prime and 99 is not, 103 is the missing twin.

Playing with Numbers Ex 2.3 Q14

Answer :

(i) **Co-primes:** Two natural numbers are said to be co-prime numbers if they have 1 as their only common factor.

Hence, all the given pairs of numbers are co-primes.

(ii) **Primes:** Natural numbers which have exactly two distinct factors, i.e., 1 and the number itself are called prime numbers.

Hence, (59, 61) and (71, 73) are pairs of prime numbers.

(iii) **Composite numbers:** Natural numbers which have more than two factors are called composite numbers.

Hence, (55, 57) and (63, 65) are pairs of composite numbers.

Playing with Numbers Ex 2.3 Q15

Answer :

For a number (greater than 10) to be a prime number, the possible digit in the unit's place may be 1, 3, 7, or 9.
Example: 11, 13, 17, and 19 are prime numbers greater than 10.

Playing with Numbers Ex 2.3 Q16

Answer :

The required seven consecutive composite numbers are 90, 91, 92, 93, 94, 95 and 96.

Playing with Numbers Ex 2.3 Q17

Answer :

(i) False.

2 + 3 = 5 which is a prime number.

(ii) True.

The product of prime numbers is always a composite number.

(iii) False.

The even number 2 is not a composite number.

(iv) False.

2 and 3 are consecutive numbers and are also prime numbers.

(v) False.

9 is an odd number but it is a composite number as its factors are 1, 3 and 9.

(vi) False.

9 is an odd number: 9 = 7 + 2 where 7 and 2 are prime numbers.

(vii) True.

A number and its successor have only one common factor (i.e., 1).

Playing with Numbers Ex 2.3 Q18

Answer :

(i) A number having only two factors is called a prime number.
(ii) A number having more than two factors is called a composite number.
(iii) 1 is neither composite nor prime.
(iv) The smallest prime number is 2.
(v) The smallest composite number is 4.

********** END **********