Mathematics

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(Chapter – 3) (Playing With Numbers)
(Class – VI)

Exercise 3.1

Question 1:
Write all the factors of the following numbers:

(a) 24  
(b) 15  
(c) 21  
(d) 27

(e) 12  
(f) 20  
(g) 18  
(h) 23

(i) 36

Answer 1:

(a) \[ 24 = 1 \times 24 = 2 \times 12 = 3 \times 8 = 4 \times 6 = 6 \times 4 \]
\[ \therefore \text{Factors of 24} = 1, 2, 3, 4, 6, 12, 24 \]

(b) \[ 15 = 1 \times 15 = 3 \times 5 = 5 \times 3 \]
\[ \therefore \text{Factors of 15} = 1, 3, 5, 15 \]

(c) \[ 21 = 1 \times 21 = 3 \times 7 = 7 \times 3 \]
\[ \therefore \text{Factors of 21} = 1, 3, 7, 21 \]

(d) \[ 27 = 1 \times 27 = 3 \times 9 = 9 \times 3 \]
\[ \therefore \text{Factors of 27} = 1, 3, 9, 27 \]

(e) \[ 12 = 1 \times 12 = 2 \times 6 = 3 \times 4 = 4 \times 3 \]
\[ \therefore \text{Factors of 12} = 1, 2, 3, 4, 6, 12 \]

(f) \[ 20 = 1 \times 20 = 2 \times 10 = 4 \times 5 = 5 \times 4 \]
\[ \therefore \text{Factors of 20} = 1, 2, 4, 5, 10, 20 \]

(g) \[ 18 = 1 \times 18 = 2 \times 9 = 3 \times 6 \]
\[ \therefore \text{Factors of 18} = 1, 2, 3, 6, 9, 18 \]

(h) \[ 23 = 1 \times 23 \]
\[ \therefore \text{Factors of 23} = 1, 23 \]

(i) \[ 36 = 1 \times 36 = 2 \times 18 = 3 \times 12 = 4 \times 9 = 6 \times 6 \]
\[ \therefore \text{Factors of 36} = 1, 2, 3, 4, 6, 9, 12, 18, 36 \]

Question 2:
Write first five multiples of: (a) 5  (b) 8  (c) 9

Answer 2:

(a) \[ 5 \times 1 = 5, 5 \times 2 = 10, 5 \times 3 = 15, 5 \times 4 = 20, 5 \times 5 = 25 \]
\[ \therefore \text{First five multiples of 5 are 5, 10, 15, 20, 25.} \]

(b) \[ 8 \times 1 = 8, 8 \times 2 = 16, 8 \times 3 = 24, 8 \times 4 = 32, 8 \times 5 = 40 \]
\[ \therefore \text{First five multiples of 8 are 8, 16, 24, 32, 40.} \]

(c) \[ 9 \times 1 = 9, 9 \times 2 = 18, 9 \times 3 = 27, 9 \times 4 = 36, 9 \times 5 = 45 \]
\[ \therefore \text{First five multiples of 9 are 9, 18, 27, 36, 45.} \]

Question 3:
Match the items in column 1 with the items in column 2:

Column 1  Column 2

(i) 35  (a) Multiple of 8
(ii) 15  (b) Multiple of 7
(iii) 16  (c) Multiple of 70
(iv) 20  (d) Factor of 30
(v) 20  (e) Factor of 50

Answer 3:

(i) → (b), (ii) → (d), (iii) → (a), (iv) → (f), (v) → (e)

Question 4:
Find all the multiples of 9 up to 100.

Answer 4:
Multiples of 9 up to 100 are: 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99