



1. Answer the following.

- (a) Is 4 a factor of 36?
(c) Is 23 a factor of 115?

- (b) Is 8 a factor of 91?

Solution 1:-

(a) Is 4 a factor of 36?

$$\begin{array}{r} 9 \\ 4 \overline{) 36 } \\ -36 \\ \hline 00 \end{array}$$

Yes, it is a factor

(c) Is 23 a factor of 115?

$$\begin{array}{r} 5 \\ 23 \overline{) 115 } \\ -115 \\ \hline 000 \end{array}$$

Yes, it is a factor.

In Q1. (b) is homework

2. Use multiplication to find the factors of the following.

(a) 48

(b) 55

(c) 42

Solution 2:-

(a) 48

$$1 \times 48 = 48$$

$$2 \times 24 = 48$$

$$3 \times 16 = 48$$

$$4 \times 12 = 48$$

$$6 \times 8 = 48$$

$$8 \times 6 = 48$$

$$12 \times 4 = 48$$

$$16 \times 3 = 48$$

$$24 \times 2 = 48$$

$$48 \times 1 = 48$$

\therefore Factors of 48 are 1, 2, 3, 4, 6, 8, 12, 16, 24 & 48.

(c) 42

$$1 \times 42 = 42$$

$$2 \times 21 = 42$$

$$3 \times 14 = 42$$

$$6 \times 7 = 42$$

$$7 \times 6 = 42$$

$$14 \times 3 = 42$$

$$21 \times 2 = 42$$

$$42 \times 1 = 42$$

\therefore Factors of 42 are 1, 2, 3, 6, 7, 14, 21 and 42.

In Q2. (b) is homework

3. Find out if the first number is a factor of the second number.

- (a) 14; 112 (b) 27; 190 (c) 28; 476

Solution 3:- (a) 14 ; 112

A handwritten division problem on lined paper. A horizontal line with a vertical bar to its left is positioned above the dividend 112. The digit 8 is written above the line, indicating it is the quotient. Below the line, the digit 1 is underlined, followed by 4, and then another 1 underlined. To the right of the 14, there is a subtraction line with a minus sign, and below it is the remainder 000.

Yes, the first number is a factor of the second number.

(b) 27 ; 190

A handwritten division problem on lined paper. A horizontal line with a vertical bar to its left is positioned above the dividend 190. The digit 7 is written above the line, indicating it is the quotient. Below the line, the digits 1, 9, and 0 are underlined sequentially. To the right of the 27, there is a subtraction line with a minus sign, and below it is the remainder 001.

No, the first number is not a factor of the second number.

In Q3. (c) is homework

4. Write all the factors of:

(a) 45

(b) 84

(c) 56

(d) 108

Solution 4:- (a) 45

$$\begin{aligned}1 \times 45 &= 45 \\3 \times 15 &= 45 \\5 \times 9 &= 45 \\9 \times 5 &= 45 \\15 \times 3 &= 45 \\45 \times 1 &= 45\end{aligned}$$

\therefore The factors of 45 are 1, 3, 5, 9, 15 and 45.

(b) 84

$$\begin{aligned}1 \times 84 &= 84 \\2 \times 42 &= 84 \\3 \times 28 &= 84 \\4 \times 21 &= 84 \\6 \times 14 &= 84 \\7 \times 12 &= 84 \\12 \times 7 &= 84 \\14 \times 6 &= 84 \\21 \times 4 &= 84 \\28 \times 3 &= 84 \\42 \times 2 &= 84 \\84 \times 1 &= 84\end{aligned}$$

\therefore Factors of 84 are 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42 and 84.

(d) 108

$$1 \times 108 = 108$$

$$2 \times 54 = 108$$

$$3 \times 36 = 108$$

$$4 \times 27 = 108$$

$$6 \times 18 = 108$$

$$9 \times 12 = 108$$

$$12 \times 9 = 108$$

$$18 \times 6 = 108$$

$$27 \times 4 = 108$$

$$36 \times 3 = 108$$

$$54 \times 2 = 108$$

$$108 \times 1 = 108$$

\therefore Factors of 108 are 1, 2, 3, 4, 6, 9,
12, 18, 27, 36, 54, 108.

In Q4. (c) is homework

5. Say whether the following are true or false.

(a) 5 is a factor of 15.

(b) 0 is a factor of 4.

(c) 6 is a factor of 45.

(d) Every number is a factor of itself.

Solution 5:-

(a) True

(b) False

(c) False

(d) True

6. Find the common factors for each of the following.

(a) 6, 14

(b) 12, 32

(c) 24, 36

(d) 30, 45

Solution 6:- (a) 6 , 14

(a) 6, 14

$$1 \times 6 = 6$$

$$2 \times 3 = 6$$

$$3 \times 2 = 6$$

$$6 \times 1 = 6$$

$$1 \times 14 = 14$$

$$2 \times 7 = 14$$

$$7 \times 2 = 14$$

$$14 \times 1 = 14$$

Factors of 6 = 1, 2, 3, 6

Factors of 14 = 1, 2, 7, 14

So, 1 and 2 are common factors of 6 and 14.

(d) 30 , 45

(d) 30, 45

$$1 \times 30 = 30$$

$$2 \times 15 = 30$$

$$3 \times 10 = 30$$

$$5 \times 6 = 30$$

$$6 \times 5 = 30$$

$$10 \times 3 = 30$$

$$15 \times 2 = 30$$

$$30 \times 1 = 30$$

$$1 \times 45 = 45$$

$$3 \times 15 = 45$$

$$5 \times 9 = 45$$

$$9 \times 5 = 45$$

$$15 \times 3 = 45$$

$$45 \times 1 = 45$$

Factors of 30 = 1, 2, 3, 5, 6, 10, 15, 30

Factors of 45 = 1, 3, 5, 9, 15, 45

So, 1, 3, 5 and 15 are common factors.

In Q6. (b) and (c) are homework