

CLASS: 5
SUBJECT: MATHEMATICS (Assignment 7)

Divisibility

When a number (say 'A') is divided by another number (say 'B') and the remainder is zero then we say that the 'A' is divisible by 'B'.

There are various rules to find whether a given number is divisible by another number. Some of them are given below.

1. To find whether a number is divisible by 2

Check the last digit of a given number. If it is 0 or an even number (2, 4, 6, 8) then the number is divisible by 2.

Example A: Check if 4896 is divisible by 2.

The last digit of the given number is 6 which is even. Hence the number is divisible by 2.

2. To find whether a number is divisible by 3

Find the sum of the digits of the given number. If the sum is divisible by 3 then the number is divisible by 3.

Example: Check if 2445 is divisible by 3

The sum of the digits $2+4+4+5=15$ which is divisible by 3. Hence the given number is divisible by 3.

3. To find whether a number is divisible by 4

Check the number formed by the last two digits of the given number. If that number is divisible by 4 then the number is divisible.

Example B: Check if 9816 is divisible by 4

The number formed by the last two digits is 16 which is divisible by 4. Hence the number is divisible by 4.

4. To find whether a number is divisible by 5

Check the last digit of the given number. If it is 0 or 5 then the number is divisible by 5.

Example: Check if 4575 is divisible by 5

The last digit of the given number is 5. Hence it is divisible by 5.

5. To find whether a number is divisible by 6

Check if the given number is divisible by both 2 and 3. If it can be divided by both then the number is divisible by 6.

Example A: Check if 21036 is divisible by 6

Check divisibility by 2

Last digit of the given number is 6. Hence it is divisible by 2

Check divisibility by 3

The sum of digits of the given number is $2+1+0+3+6=12$ which is divisible by 3. Hence it is divisible by 3.

Since the number is divisible by both 2 and 3 therefore the given number is divisible by 6.

6. To find whether a number is divisible by 8

Check the number formed by the last 3 digits of the given number. If it is divisible by 8 then the given number is divisible by 8.

Example: Check if 25248 is divisible by 8

The number formed by the last 3 digits is 248 which is divisible by 8. Hence the given number is divisible by 8.

7. To find whether a number is divisible by 9

Find the sum of the digits of the given number. If it is divisible by 9 then the given number is divisible by 9.

Example: Check if 5922 is divisible by 9

The sum of the digits $5+9+2+2=18$ which is divisible by 9. Hence the given number is divisible by 9

Factors

1. A number is said to be a factor of another number if it can divide the other number completely i.e. the remainder should be 0. Example: When 10 is divided by 2, the remainder is 0. Hence 2 is a factor of 10.
2. Factors can also be described as pairs of numbers which you can multiply to get the given number.
Example: To find the factors of 10
 $1 \times 10 = 10$
 $2 \times 5 = 10$
Hence 1, 2, 5 and 10 are all factors of 10.
3. Any number multiplied by 1 gives the number itself. Hence 1 is a factor of every number. Also every number is a factor of itself.
Example: $1 \times 12 = 12$
 $1 \times 15 = 15$
 $1 \times 99 = 99$
4. The factor of a number is always less than or equal to the given number.
Example: Factors of 12 are 1, 2, 3, 4, 6 and 12
5. Every number except 1 has at least two factors, 1 and the number itself.

Copy the questions, choose the correct answer and write in the Math copy. (Answers are provided at the end)

1. Out of the following numbers which number is divisible by 2?
a) 98785 b) 85673 c) 88976 d) 91999
2. Which number is divisible by 4?
a) 25688 b) 13622 c) 34532 d) Both A & C
3. Which number is divisible by 5?
a) 25764 b) 35270 c) 65775 d) Both B & C
4. Find out which number is divisible by 3?
a) 25764 b) 35270 c) 65774 d) None of these
5. 6 is factor of 10560, True or False.
a) True b) False
6. 3 is factor of 79306, True or False.
a) True b) False
7. The factors of 16 are 1, 2, 4, 8, 12 and 16.
a) True b) False
8. Write two factors of 36 whose sum is 13.
a) 2 & 18 b) 9 & 5 c) 4 & 9 d) None of these
9. Write the missing factor of 24.
1, 2, 3, 4, 6, _____, 12, 24
a) 9 b) 7 c) 8 d) None of these

10. Number 1 is factor of every number.

a) True b) False

11. 456 is divisible by 4.

a) True b) False

12. Find all the factors of 72.

a) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 18, 24, 36 and 72

b) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36 and 72

c) 1, 2, 3, 4, 6, 8, 12, 18, 24, 36 and 72

d) None of these

13. Which number has more factors?

a) 36 b) 25 c) 50 d) 72

14. Find the factors of 28.

a) 1, 28 b) 1, 6, 7, 28 c) 1, 4, 7, 14 d) 1, 2, 4, 7, 14, 28

15. Find the factors of 20.

a) 1, 2, 4, 5, 10, 20 b) 2, 4, 5, 10 c) 1, 3, 5, 20 d) 1, 2, 4, 5, 10

Answer key	
1) c	8. c
2) d	9. c
3) d	10. a
4) a	11. a
5) a	12. b
6) b	13. d
7) b	14. d
	15. a