



# VIDYA BHAWAN, BALIKA VIDYAPITH

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(Affiliated to CBSE up to +2 Level)

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Sub.: Mathematics

## Factorisation

### Fill In The Blanks

1. Division is opposite of .....
2. If  $(2x - 5)(x + 3) = 2x^2 + x + a$ , then 'a' is .....
3. The product  $(x + y)(x - y)(x^2 + y^2)$  is .....
4. All the factors of  $4x^2$  are .....
5. The value of  $105 \times 95$  is .....

### True(T) Or False(F)

1.  $\frac{2+x-5}{2+x} = -5$
2.  $3(y - 2) = 3y - 2$
3.  $4x + 3y = 7xy$
4.  $(3x)^2 + 4(3x) + 5 = 3x^2 + 12x + 5$
5.  $a(5a + 2) = 5a^2 + 2a$

### Very Short Answer Type Questions

1. Factorise  $12a^2b + 15ab^2$
2. Factorise  $x^2 - 36$  using identity
3. Divide  $(x^2 - 16)$  by  $(x + 4)$
4. Find the greatest common factor of  $-4a^3 b^2$ ,  $12 a^3 b^3 c$ ,  $16a^5 bc$
5. Factorise  $(a + b)^2 - (a - b)^2$
6. Divide  $(x^2 - 6x + 9)$  by  $(x - 3)$

### Short Answer Type Questions

1. Evaluate  $(502)^2 - (498)^2$  using suitable identity.
2. Evaluate  $(8.6)^2 - (1.4)^2$  using suitable identity.

3. Factors of  $x^2 - 7x + 12$  is

4. Factors of  $x^2 + x - 56$  is

### **Long Answer Type Questions**

1. Resolve into factors:  $2x^2 - 3ax - 2a^2$

2. Divide:  $44(x^4 - 5x^3 - 24x^2)$  by  $11x(x - 8)$ .

3. Divide:  $z(5z^2 - 80)$  by  $5z(z + 4)$