Grade 8 Factorisation Worksheets

Grade 8 Maths Factorisation Multiple Choice Questions (MCQs)

1. **The factors of $6x^2 + 5x – 6$ are:**
(a) $(2x – 3)(3x – 2)$
(b) $(2x – 3)(3x + 2)$
(c) $(2x + 3)(3x – 2)$
(d) $(2x + 3)(3x + 2)$
2. **The factors of $12x^2 – 7x + 1$ are:**
(a) $(4x – 1)(3x – 1)$
(b) $(4x – 3)(3x + 1)$
(c) $(4x + 1)(3x – 1)$
(d) $(4x + 1)(3x + 1)$
3. **On dividing $x^3 + 3x^2 + 3x + 1$ by x we get remainder:**
(a) 1
(b) 0
(c) -1
(d) 2
4. **Find the correct identity:**
(a) $(a + b)^2 = a^2 + 2ab + b^2$
(b) $(a + b)^2 = a^2 – 2ab + b^2$
(c) $(a – b)^2 = a^2 + 2ab + b2^2$
(d) $(a^2 – b^2) = a^2 + 2ab + b^2$
5. **Find the incorrect mathematical statement.**
(a) $4(x – 5) = 4x – 20$
(b) $3x + 2x = 5x^2$
(c) $x(3x + 2) = 3x^2 + 2x$
(d) $2x + 3x = 5x$
6. **Factors of $a^2 + 8a + 16$ are:**
(a) $(a + 4)(a – 4)$
(b) $(a + 4)(a + 4)$
(c) $(a + 4)(4 – a)$
(d) $(a – 4)(a – 4)$
7. **Factors of $12a^2b + 15ab^2$ is**
(a) $3ab(4a + 5b)$
(b) $3ab(4a + 15b)$
(c) $ab(12a + 15b)$
(d) None of these
8. **Factors of $14pq + 35pqr$ is**
(a) $pq(14 + 35r)$
(b) $7pq(2 + 5 r)$

(c) 7pq(14 + 5r)
(d) None of these
9. **Factors of 2xy + 2y + 3x + 3 is**
(a) (x + 1)(2y + 1)
(b) (x + 1)(2y + 3)
(c) (x + 3)(2y + 1)
(d) None of these
10. **Factors of 6xy – 4y + 6 – 9x is**
(a) (3x – 2)(2y + 3)
(b) (3x – 1)(2y – 3)
(c) (3x + 2)(2y – 3)
(d) None of these
11. **Factors of $5x^2y – 15xy^2$ is**
(a) xy(5x – 15y)
(b) 5xy(x – 3y)
(c) 5xy(x – 5y)
(d) None of these
12. **Factors of 15pq + 15 + 9q + 25p is**
(a) (5p + 3)(3q + 5)
(b) (5p + 3)(q + 5)
(c) (p + 3)(3q + 5)
(d) None of these
13. **Factors of z – 7 + 7xy – xyz is**
(a) (z – 7)(1 – xy)
(b) (z – 7)(xy – 1)
(c) (7 – z)(1 – xy)
(d) None of these
14. **Factors of $x^2 + 8x + 16$ is**
(a) (x + 8)(x + 2)
(b) (x + 4)(x + 2)
(c) (x + 4)(x + 4)
(d) None of these
15. **Factors of $4y^2 – 12y + 9$ is**
(a) (2y – 3)(2y – 6)
(b) (2y – 3)(2y – 3)
(c) (4y – 3)(y – 3)
(d) None of these
16. **Factors of $49p^2 – 36$ is**
(a) (7p – 9)(7p + 4)
(b) (4p + 4)(7p – 9)
(c) (7p – 6)(7p + 6)
(d) None of these

17. **Factors of $a^2 – 2ab + b^2 – c^2$ is**
(a) (a – b – c)(a – b + c)
(b) (a + b – c)(a + b + c)
(c) (a – b + c)(a – b + c)
(d) None of these
18. **Factors of $x^2 + 5x + 6$ is**
(a) (x + 3)(x + 2)
(b) (x + 4)(x + 2)
(c) (x + 6)(x + 1)
(d) None of these
19. **Factors of $36 – 9x^2$ will be**
(a) (6 + 3x)(6 – 3x)
(b) (3x – 6)(6 – 3x)
(c) (3x + 6)(3x -6)
(d) (12x – 3x)(3 + 3x)
20. **Square of $\left(x - \frac{1}{x}\right)$ will be:**
(a) $x^2 – 2 – \frac{1}{x^2}$
(b) $x^2 – 2 + \frac{1}{x^2}$
(c) $x^2 – 4 – \frac{1}{x^2}$
(d) $x^2 – 2 + \frac{1}{x}$

Class 8 Maths 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 × 95 is …….. .

Class 8 Maths Factorisation True(T) Or False(F)

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

Class 8 Maths Factorisation 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 $-4a^3 b^2$, $12 a^3b^3c$, $16a^5bc$

5. Factorise $(a + b)^2 – (a – b)^2$
6. Divide $(x^2 – 6x + 9)$ by $(x – 3)$

Class 8 Maths Factorisation 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

Class 8 Maths Factorisation 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 $5z(z + 4)$

Worksheets for Class 8 Maths