

- Which of the following is not a factor of $15x^2y$.
 (a) x (b) y^2 (c) 15 (d) xy
- Which of the following do not have $(-3a)$ as its factor?
 (a) $-16ab^2$ (b) $-27a^2b^2$ (c) $-3a^4b^2$ (d) None of these
- The common factor of $-12x^3y^2$, $42x^2y^4$ and $9x^5y$ is
 (a) $6x^2y^2$ (b) $3x^2y$ (c) $252x^5y^4$ (d) $-126x^5y^5$
- Which of the following is not a factor of $-12(x+1)(2x+y)$?
 (a) -12 (b) $(x+1)$ (c) $-12(x+1)$ (d) None of these
- One of the factor of $72x^6y^4 - 54x^3y^5$ is
 (a) $6x^4y^4$ (b) $18x^3y^4$ (c) $12x^3y^5$ (d) $18x^2y^5$
- Which of the following is a factor of $14(xyz^2 + x^2yz - xy^2z)$?
 (a) xyz (b) $2xyz$ (c) $7xy$ (d) All of these
- Factor of $x^2 - 11x + 24$ is
 (a) $(x-8)(x-3)$ (b) $(x+3)(x+8)$ (c) $(x-8)(x+3)$ (d) $(x+8)(x-3)$
- Factorisation of $x^2 - 4xy - 2x + 8y$ is
 (a) $(x-4y)(x-2)$ (b) $(x+2)(4y-x)$ (c) $(x-2)(x+4y)$ (d) $(x+2)(x-4y)$
- Which of the following algebraic expression has $(x-3)$ and $(x+1)$ as its factors?
 (a) $x^2 - 4x + 3$ (c) $x^2 + 2x - 3$ (b) $x^2 - 2x - 3$ (d) $x^2 + 4x + 3$
- Factorise: $9a^2x^2 - 12axb + 4b^2$
 (a) $(3a+2bx)^2$ (b) $(3ax+2b)^2$ (c) $(3ax-2b)^2$ (d) $(3a-2bx)^2$
- Factorisation of $8p^2 - 288$ is
 (a) $8(p-6)(p+6)$ (c) $4(4p^2-18)$ (b) $16(p+18)(p-18)$ (d) $16(p^2-18)$

12. Factorise: $20(25a^2 - 16b^2)ab$

(a) $20(5a - 4b)(5a + 4b)$

(b) $20ab(25a - 16b)(25a + 16b)$

(c) $20ab(5a - 4b)(5a + 4b)$

(d) $20(5a^2 - 4b^2)(5a^2 + 4b^2)$

13. Factorise: $x^4 - 4x^2 + 4$

(a) $(x + \sqrt{2})(x - \sqrt{2})$

(b) $(x + \sqrt{2})(x - \sqrt{2})(x + 1)(x - 1)$

(c) $(x + 4)(x - 4)(x + \sqrt{2})(x - \sqrt{2})$

(d) $(x + \sqrt{2})(x - \sqrt{2})(x + \sqrt{2})(x - \sqrt{2})$

14. Factorisation of $1 - x + x^3 - x^2$ is
 (a) $(x-1)(x+1)$ (b) $(x-1)(x+1)^2$ (c) $(x^2-1)(x+1)$ (d) $(x-1)^2(x+1)$
15. Factorise: $6x^5y - 24xy^5$
 (a) $6xy(x-4y)(x+4y)$ (b) $6xy(x^2-4y)(x^2+4y)$
 (c) $6xy(x-2y)(x+2y)$ (d) $6xy(x^2+2y^2)(x+\sqrt{2}y)(x-\sqrt{2}y)$
16. Factorisation of $p(a-b) + 2q(b-a) - r(a-b)^2$ is
 (a) $(a-b)(p+2q-ra-rb)$ (b) $(a-b)(p-2q-ra-rb)$
 (c) $(b-a)(p+2q+ra-rb)$ (d) $(a-b)(p-2q-ra+rb)$
17. On dividing the monomial $64x^8y^6z^4$ by _____ we get the quotient same as the divisor.
 (a) $4x^2y^3z^2$ (b) $8x^4y^3z^2$ (c) $16x^4y^3z^4$ (d) None of these
18. Find the length of the rectangle whose area is $3x^2y - 57xy$ and breadth is $3xy$.
 (a) $x+17$ (b) $3x-7$ (c) $x-19$ (d) $2x+19$
19. Find which of the following is correct?
 (a) $a^3b^2 \div 3a^2b = ab$ (b) $3a^3b^2 \div a^2b = 3ab$
 (c) $a^3b^2 \div ab^2 = a^2b$ (d) $3a^2b^3 \div 6ab = 2ab^2$
20. On dividing $14x^2 + 28xy + 14y^2$ by $7x+7y$, we get
 (a) $7x+7y$ (b) $2x+2y$ (c) $2x+7y$ (d) $7(2x+2y)$
21. On dividing $x^2 - 66 + 5x$ by $x-6$, we get
 (a) $x-11$ (b) $x+11$ (c) $x-22$ (d) $x+33$
22. The error in the statement $x^4 + 6x^2 = x^2(x+6)$ is corrected as
 (a) $x^4 + 6x^2 = x^2(x^2 - 6)$ (b) $x^4 + 6x = x^2(x+6)$
 (c) $x^4 + 6x^2 = x^2(x^2 + 6)$ (d) None of these.

23. Which of the following factor is incorrect in the statement $x^3 + 4x^2 - 21x = x(x+3)(x+7)$?
- (a) x (b) $x+3$ (c) $x+7$ (d) None of these
24. Common factor of $17abc, 34ab^2, 51a^2b$ is
- (a) $17abc$ (b) $17ab$ (c) $17ac$ (d) $17a^2b^2c$
25. Factorised form of $r^2 - 10r + 21$ is
- (a) $(r-1)(r-4)$ (b) $(r-7)(r-3)$ (c) $(r-7)(r+3)$ (d) $(r+7)(r+3)$

26. On dividing $57p^2qr$ by $114 p q$, we get
- (a) $\frac{1}{4}pr$ (b) $\frac{3}{4}pr$ (c) $\frac{1}{2}pr$ (d) $2 p r$
27. The common factor of $3 a b$ and $2 c d$ is
- (a) 1 (b) -1 (c) a (d) c
28. Number of factors of $(a + b)^2$ is
- (a) 4 (b) 3 (c) 2 (d) 1
29. The factors of $x^2 - 4$ are
- (a) $(x - 2), (x - 2)$ (b) $(x + 2), (x - 2)$ (c) $(x + 2), (x + 2)$ (d) $(x - 4), (x - 4)$
30. The value of $(2x^2 + 4) \div 2$ is
- (a) $2x^2 + 2$ (b) $x^2 + 2$ (c) $x^2 + 4$ (d) $2x^2 + 4$

Codes:

- (a) If both Statement I and Statement II are true and Statement II is the correct explanation of Statement I.
- (b) If both Statement I and Statement II are true but Statement II is not the correct explanation of Statement I.
- (c) If statement I is true but Statement II is false.
- (d) If statement I is false but Statement II is true.

31. **Statement-I:** Expression $x^2 + 10x + 25$ can be factorised as $(x + 5)(x + 5)$.

Statement-II: $a^2 - 2ab + b^2 = (a - b)^2$.

32. **Statement-I:** $(9x - 16)^2$ is a reducible factor of the expression $81x^4 - 256$.

Statement-II: $(a^2 - b^2)^2 = (a - b)^2(a + b)^2$

33. **Statement-I:** $x + 3$ is an irreducible factor of the expression $-2x^2 - 4x + 6$.

Statement-II: $2x + 6$ can be factorised as $2(x + 3)$.

34. **Statement-I:** If area of a rectangle is $4x^3 + 28x^2 + 48x$ and length of the rectangle is $4x^2 + 12x$, then its breadth is $x + 4$.

Statement-II: $(x + a)(x + b) = x^2 + (a + b)x + ab$

35. **Statement-I:** The statement $\frac{(5x)^2 - 10x + 2^2}{5x - 2} = (5x - 2)$ has no errors in it.

Statement-II

$$\therefore \frac{a^2 - 2ab + b^2}{a - b} = \frac{(a - b)^2}{a - b} = a - b$$



ANSWERS

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|-------|-------|-------|-------|
| 1. B | 2. A | 3. B | 4. D |
| 5. D | 6. D | 7. A | 8. A |
| 9. B | 10. C | 11. A | 12. C |
| 13. D | 14. D | 15. D | 16. D |
| 17. B | 18. C | 19. B | 20. B |
| 21. B | 22. C | 23. B | 24. B |
| 25. B | 26. C | 27. A | 28. C |
| 29. B | 30. B | 31. B | 32. D |
| 33. B | 34. A | 35. D | |