EduSahara™ Learning Center Assignment

Grade : Class VIII, SSC
Chapter : Factorisation
Name : Factorisation Miscellaneous
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1. Find the prime factorization of 26

   (i) 2×13^2 (ii) 5×13 (iii) 2×12

   (iv) 2×13 (v) 2×11

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2. Find the prime factorization of 64

   (i) 2^3 (ii) 5^6 (iii) 2^7

   (iv) 2^5 (v) 2^6

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3. Which of the following is a factor of $8x^3y^5z^5$?

   (i) $2x^2y^4z^6$ (ii) $2x^2y^4z^2$ (iii) $2x^3y^4z^6$ (iv) $2x^2y^6z^2$ (v) $x^4y^4z^2$

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4. Which of the following is not a factor of $8xy^3z^2$?

   (i) $2xy^3z$ (ii) $2y^3z^2$ (iii) $2x^2y^4z^2$ (iv) $2xy^2z^2$

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5. Which of the following is a factor of $(7x^4 + y^2z)$?

   (i) $7y^2$ (ii) y^2z (iii) $7x^4$ (iv) $7xz$ (v) no factors

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6. Which of the following is an irreducible factor of $41x^2y^3z^4$?

(i) z (ii) xz^3 (iii) $x^2y^3z^3$ (iv) y^3z (v) x^2y

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7. Which of the following is not an irreducible factor of $(x^2y + xy^2 + xy)$?

(i) $(x + y + 1)$ (ii) x (iii) y (iv) xy

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8. Which of the following are true ?

a) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor
b) If p(a) = 0, then (x + a) perfectly divides p(x)
c) If the degree of p(x) is less then the degree of d(x), we should not divide p(x) with d(x)
d) If p(x) is divided by (x - a), the remainder is p(a)

(i) {b,d} (ii) {a,c} (iii) {a,d,c} (iv) {a,b,c} (v) {c,d}

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9. In which of the cases, $g(x)$ is a factor of $f(x)$?

(i) $f(x) = (-3x^3 - 8x^2 + 3x + 8)$, $g(x) = (-3x + 5)$

(ii) $f(x) = (3x^3 - 5x^2 - 3x + 5)$, $g(x) = (3x + 2)$

(iii) $f(x) = (18x^3 + 123x^2 + 242x + 112)$, $g(x) = (2x + 7)$

(iv) $f(x) = (-3x^3 - 2x^2 + 3x + 2)$, $g(x) = (3x + 8)$

(v) $f(x) = (-6x^3 - 31x^2 - 19x + 56)$, $g(x) = (x + 1)$

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10. $(4x^4 + 16x^3) \div 4x^2$

(i) $4x$ (ii) $(-x^2 + 4x)$ (iii) $(x^2 + 5x)$

(iv) $(x^2 - 4x)$ (v) $(x^2 + 4x)$

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11. $(8x^4 + 22x^3 + 15x^2) \div (4x^2 + 5x)$

(i) $(-2x^2 + 3x)$ (ii) $(2x^2 + 4x)$ (iii) $(2x^2 - 3x)$

(iv) $(2x^2 + 3x)$ (v) $(x^2 + 3x)$

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12. $(9x^4 + 51x^3 + 84x^2 + 36x) \div (3x^2 + 15x + 18)$

(i) $(3x^2 - 2x)$ (ii) $(3x^2 + x)$ (iii) $(-3x^2 + 2x)$

(iv) $(3x^2 + 3x)$ (v) $(3x^2 + 2x)$

Assignment Key

1) (iv)
2) (v)
3) (ii)
4) (iii)
5) (v)
6) (i)
7) (iv)
8) (v)
9) (iii)
10) (v)
11) (iv)
12) (v)