EduSahara™ Assignment

Name : Factorisation Miscellaneous

Chapter : Factorisation

Grade : SSC Grade VIII

1. Find the prime factorization of 6

   (i) 2×3^2 (ii) 2×2 (iii) 2×3 (iv) 2×1 (v) 2×5

2. Find the prime factorization of 63

   (i) $3^2\times7$ (ii) 3×7 (iii) $3^2\times7^2$ (iv) $3^2\times4$ (v) $3^2\times10$

3. Which of the following is a factor of $35x^5y^5z^2$?

   (i) $7x^4y^6$ (ii) $7x^4y^4$ (iii) $7x^4y^4z^3$ (iv) x^6y^4 (v) $7x^5y^4z^3$

4. Which of the following is not a factor of $40x^5y^2z^3$?

   (i) x^2 (ii) $x^4y^2z^3$ (iii) $x^5y^2z^2$ (iv) x^5yz^3 (v) $x^6y^3z^4$

5. Which of the following is a factor of $(6x+yz^2)$?

   (i) no factors (ii) $6x$ (iii) $3y$ (iv) yz^2 (v) $3xz^2$

6. Which of the following is an irreducible factor of $29x^4y^5z^4$?

   (i) x^4y (ii) y^5z (iii) z (iv) xz^3 (v) $x^4y^5z^3$

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

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

8. Which of the following are true ?

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

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

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

   (i) $f(x)=(x^3-x^2-44x+84), g(x)=(-x+2)$ (ii) $f(x)=(-3x^3-17x^2+32x+28), g(x)=(x+2)$

   (iii) $f(x)=(-3x^3+10x^2+44x+24), g(x)=(x+7)$ (iv) $f(x)=(-3x^3+16x^2+60x+32), g(x)=(-x+6)$

   (v) $f(x)=(3x^3+29x^2+60x+28), g(x)=(-x+8)$

10. $(5x^4+3x^3)\div x^2$

(i) $(5x^2+3x)$ (ii) $(5x^2+4x)$ (iii) $(4x^2+3x)$ (iv) $(5x^2-3x)$ (v) $(-5x^2+3x)$

11. $(3x^4+4x^3+x^2)\div(x^2+x)$

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

12. $(45x^4+120x^3-105x^2-180x)\div(9x^2+15x-36)$

(i) $(5x^2+4x)$ (ii) $(-5x^2+5x)$ (iii) $(5x^2-5x)$ (iv) $(5x^2+5x)$ (v) $(5x^2+6x)$

Assignment Key

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