EduSahara™ Assignment

Name : Factorisation Miscellaneous

Chapter : Factorisation

Grade : SSC Grade VIII

1. Find the prime factorization of 32

   (i) $(-1)^5$ (ii) 4^5 (iii) 2^4 (iv) 2^6 (v) 2^5

2. Find the prime factorization of 77

   (i) 7×11^2 (ii) 7×11 (iii) 7×13 (iv) 4×11 (v) 6×11

3. Which of the following is a factor of $7x^5y^5z^3$?

   (i) $7x^5y^3z^4$ (ii) x^6y^3 (iii) $7x^2y^6$ (iv) $7x^2y^3z^4$ (v) $7x^2y^3$

4. Which of the following is not a factor of $20x^5y^3z^2$?

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

5. Which of the following is a factor of $(11x^2 + yz^4)$?

   (i) y (ii) $11x^2$ (iii) x^2z^2 (iv) no factors (v) yz^4

6. Which of the following is an irreducible factor of $45xy^3z^5$?

   (i) xy^2z^2 (ii) xy (iii) xz^2 (iv) y^2z (v) z

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

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

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 the degree of p(x) is less then the degree of d(x), we should not divide p(x) with d(x)
   c) If p(a) = 0, then (x + a) perfectly divides p(x)
   d) If p(x) is divided by (x - a), the remainder is p(a)

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

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

   (i) $f(x) = (2x^3 - 5x^2 + x + 2), g(x) = (-x + 3)$ (ii) $f(x) = (4x^3 - 4x^2 - x + 1), g(x) = (-x + 2)$

   (iii) $f(x) = (4x^3 - 24x^2 + 23x + 18), g(x) = (-x + 1)$ (iv) $f(x) = (2x^3 - 7x^2 + 2x + 3), g(x) = (-2x + 1)$

   (v) $f(x) = (-4x^3 + 28x^2 - 49x + 18), g(x) = (-2x + 9)$

10. $(6x^3+6x^2)\div 3x$

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

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

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

12. $(12x^4+143x^3+340x^2+225x)\div(3x^2+32x+45)$

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

Assignment Key

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