

EduSahara™ Learning Center Assignment**Grade : Class X, ICSE****Chapter : Factor Theorem****Name : Polynomial Division**

1. The quotient when $(-8j)$

is divided by 3 is

(i) $(-\frac{8}{3}j)$ (ii) $(-2j)$ (iii) $(-4j)$ (iv) $(-\frac{10}{3}j)$ (v) $(-\frac{12}{5}j)$

2. The quotient when $(-4e^2)$

is divided by $(e - 4)$ is

(i) $(-6e - 16)$ (ii) $(-4e - 16)$ (iii) $(-2e - 16)$
(iv) $(-3e - 16)$ (v) $(-5e - 16)$

3. The quotient when $(-3j + 1)$

is divided by $(j - 2)$ is

(i) (-6) (ii) (-2) (iii) 0 (iv) (-4) (v) (-3)

4. The quotient when $(5w^2 - 4w - 2)$

is divided by $(w + 3)$ is

(i) $(2w - 19)$ (ii) $(6w - 19)$ (iii) $(8w - 19)$
(iv) $(5w - 19)$ (v) $(4w - 19)$

5. The quotient when $(-7a^2 - 4a)$

is divided by $(a + 1)$ is

(i) $(-4a + 3)$ (ii) $(-10a + 3)$ (iii) $(-8a + 3)$
(iv) $(-7a + 3)$ (v) $(-6a + 3)$

6. The quotient when $(-6b^3 + 5b^2 + 6b)$

is divided by $(b^2 - 9b + 20)$ is

(i) $(-7b - 49)$ (ii) $(-6b - 49)$ (iii) $(-8b - 49)$

(iv) $(-5b - 49)$ (v) $(-4b - 49)$

The quotient when $(7k^4 + 2k^3 - 9k^2 - 6k - 8)$

7.

is divided by $(k^2 - k - 20)$ is

(i) $(6k^2 + 9k + 140)$ (ii) $(9k^2 + 9k + 140)$ (iii) $(7k^2 + 9k + 140)$

(iv) $(8k^2 + 9k + 140)$ (v) $(4k^2 + 9k + 140)$

The quotient when $(d^5 + 5d^4 - 3d^3 + 9d^2 + 4d + 3)$

8.

is divided by $(d - 9)$ is

(i) $(14d^3 + 123d^2 + 1116d + 10048)$

(ii) $(-2d^4 + 14d^3 + 123d^2 + 1116d + 10048)$

(iii) $(2d^4 + 14d^3 + 123d^2 + 1116d + 10048)$

(iv) $(3d^4 + 14d^3 + 123d^2 + 1116d + 10048)$

(v) $(d^4 + 14d^3 + 123d^2 + 1116d + 10048)$

9. $(-18x^3 + 24x^2 + 6x - 12) \div (6x^2 - 2x - 4) =$

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

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

10. $(18x^4 + 72x^3 + 46x^2 - 32x - 24) \div (9x^3 + 27x^2 - 4x - 12) =$

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

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

$(-27x^5 - 162x^4 - 297x^3 - 158x^2 + 20x + 24)$ divided by

11.

$(3x^3 + 17x^2 + 28x + 12) =$

(i) $(-9x^2 - 4x + 2)$ (ii) $(-9x^2 + 3x + 2)$ (iii) $(-9x^2 - 3x + 2)$

(iv) $(\quad)$ (v) $(\quad)$

$$-9x^2 - 3x - 2$$

$$-9x^2 - 2x + 2$$

12. $(112x^3y^3 + 16x^2y^4) \div 4xy^2 =$

(i) $(28x^3y^2 + 4xy^2)$ (ii) $(28x^2y + 4xy^3z)$ (iii) $(28x^3y^3 + 4xy^2)$

(iv) $(28x^2y + 4xy^2)$ (v) $(28x^2y + 4y^3)$

13. $(64x^4y^2z^2 + 256x^3y^3z^3 + 16x^3y^2z^2) \div 4x^2yz =$

(i) $(16x^2yz + 4xyz + 64y^3z^2)$ (ii) $(16x^2yz + 64xy^3z^3 + 4xyz)$

(iii) $(16x^2yz + 64xy^2z^2 + 4xyz)$ (iv) $(16x^3y^3z + 64xy^2z^2 + 4xyz)$

(v) $(16x^3y^2z + 64xy^2z^2 + 4xyz)$

14. $(12x^3 + 15x^2) \div 3x$

(i) $(4x^2 - 5x)$ (ii) $(4x^2 + 6x)$ (iii) $(3x^2 + 5x)$

(iv) $(-4x^2 + 5x)$ (v) $(4x^2 + 5x)$

15. $(3x^4 + 18x^3 + 15x^2) \div (3x^2 + 3x)$

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

(iv) $(x^2 + 6x)$ (v) $5x$

16. $(4x^4 + 72x^3 + 356x^2 + 288x) \div (x^2 + 17x + 72)$

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

(iv) $(4x^2 + 4x)$ (v) $(4x^2 + 5x)$

Assignment Key

- 1) (i)
- 2) (ii)
- 3) (v)
- 4) (iv)
- 5) (iv)
- 6) (ii)
- 7) (iii)
- 8) (v)
- 9) (ii)
- 10) (ii)
- 11) (iii)
- 12) (iv)
- 13) (iii)
- 14) (v)
- 15) (i)
- 16) (iv)