

Subject: Maths

Class:8

Topic: Ch.7 Factorisation

EXERCISE 7.8

Use Cordova Smart Class Software on the smart board in class to do Exercise.

1. Divide :

(i) $x^2 - 5x + 6$ by $x - 3$

(ii) $x^3 - 1$ by $x - 1$

(iii) $15x^2 + 41x + 28$ by $3x + 4$

(iv) $2x^3 - 3x^2 + 5x + 21$ by $2x + 3$

(v) $8a^3 + 27b^3$ by $2a + 3b$

(vi) $10x^2 + 11x - 6$ by $2x + 3$

(vii) $2x^4 + 9x^3 - 47x^2 + 68x - 32$ by $x^2 + 7x - 8$

(viii) $6a^4 + 11a^2b^2 + 3b^4$ by $2a^2 + 3b^2$

(ix) $2x^3 - 5x^2 + 11x + 7$ by $2x + 1$

(x) $6x^4 - x^3 - 28x^2 + 47x - 28$ by $3x^2 - 5x + 4$

2. Find the quotient and remainder when we divide :

(i) $x^4 + 8x + 15$ by $x^2 - 2x + 2$

(ii) $x^4 + x^2$ by $x^2 - 2$

(iii) $6a^3 - a^2 - 10a - 3$ by $2a - 3$

(iv) $14x^2 + 13x - 15$ by $7x - 4$

3. (i) If $x^3 + 1$ is a factor of $x^5 + x^4 + x^3 + x^2 + x + 1$, what is the other factor?

(ii) If $4x - 3$ is a factor of $8x^2 + 14x - 15$, find the other factor.

EXERCISE 7.9

Use Cordova Smart Class Software on the smart board in class to do Exercise.

Divide (using factorisation) :

1. $15x^2 + x - 6$ by $3x + 2$

2. $4x^2 - 8x + 3$ by $2x - 1$

3. $x^2 + 12x + 20$ by $x + 10$

4. $x^2 - 14x - 51$ by $x + 3$

5. $3m^2 + 22m + 35$ by $3m + 7$

6. $m^2 + 8m + 12$ by $m + 2$

7. $x^4 + 3x^2$ by $3x^3 + 9x$

8. $8x^2 - 18x + 9$ by $2x - 3$

9. $6x^2 + 11x - 10$ by $2x + 5$

10. $2x^2 + x - 45$ by $x + 5$

11. $x^2 - 17x + 16$ by $x - 16$

12. $9x^2 - 12x + 4$ by $3x - 2$

13. $x^6 - 9x^2$ by $x^3 - 3x$

14. $6x^3 + 18x^2 + 12x$ by $2x^2 + 4x$

