MATHS

BOOKS - OSWAAL PUBLICATION MATHS (KANNADA ENGLISH)

POLYNOMIALS

Topic 1 Degree Value And Zero Of A Polynomail Multiple Choice Question

1. The degree of polynomial $p(x) = x^2 - 3x + 4x^3 - 6$ is

A. 2

B. 1

C. 3

D. 6

Answer: C

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2. If the polynomial $p(x) = x^2 - x + 1$ is divided by (x- 2) then the remainder is:

A. 2

B. 3

C. 0

D. 1

Answer: B

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3. If $p(x) = x^3 - 4x^2 - 2x + 20$ the factor for this polynomial is :

A. x+2

B. x-2

C. x-1

D. x+1

Answer: A

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4. Which of the following is the zeroes of the polynomial $x^2 + 4x + 4$?

A. 2

B. -2

C. 4

D. -4

Answer: B

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5. If x = 1 is a zero of the polynomial $f(x) = x^3 - 2x^2 + 4x + K$, then the value of Kis:

A. 6

B. 2

C. 1

D. 0

Answer: A

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6. If $f(x) = 2x^3 + 3x^2 + 11x + 6$, then f(1) is :

A. 6

B. 2

C. 1

D. 0

Answer: D

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7. If $f(x) = x^2 + x - 1$ then the value of f(1) is

A. 3

B. -1

C. 1

D. 0

Answer: C

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8. If $f(x) = x^2 + 7x - 10$, then the value of f(2) is:

A. 3

B. 5

C. 8

D. 10

Answer: C

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9. If α and β are the zeroes of the polynomial $2x^2 + 5x + 1$, then the value of $\alpha + \beta + \alpha\beta$ is

A. -2

B. -1

C. 1

D. 3

Answer: A

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10. The polynomial whose zeroes are - 5 and 4 is :

A. $x^2 - 5x + 4$

B. $x^2 + 5x - 4$

C. $x^2 + x - 20$

D. $x^2 - 9x - 20$

Answer: C

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11. If $\sqrt{3}$ and - $\sqrt{3}$ are the zeroes of a polynomial p(x), then p(x) is :

A. $x^2 - 3$

B. $x^2 - 9$

C. $x^2 + 3$

D. $3x^2 - 1$

Answer: A

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12. The maximum number of zeroes that a polynomial of degree 3 can have is :

A. One

B. Two

C. Three

D. None

Answer: C

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13. If 1 is the zero of the quadratic polynomial $x^2 + kx - 5$, then the value of k is:

A. 4

B. -4

C. 0

D. 5

Answer: A

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14. If one zero of the quadratic polynomial $2x^2 + kx - 15$ is 3, then the other zero is :

A. -15

B. $\frac{-15}{2}$

C. $\frac{-5}{2}$

D. k

Answer: C

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15. If $p(x) = 5x^2 - 3x + 7$, then p(1) equals to :

A. -10

B. 9

C. -9

D. 10

Answer: B

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16. The number of zeroes of the polynomial $x^3 - x - 3 - 3x^2$ is:

A. Zero

B. 1

C. 2

D. 3

Answer: D

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17. If x + y + 2 =0, then x^(3) + y^(3) + 8 equals to :

A. $(x + y + 2)^3$

B. Zero

C. 6xy

D. -6xy

Answer: C

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18. If x = 2 is a zero of the polynomial $2x^2 + 3x - p$, then the value of pis:

A. -4

B. 0

C. 8

D. 14

Answer: D

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19. $x + \frac{1}{x}$ is:

A. A polynomial of degree 1

B. A polynomial of degree 2

C. A polynomial of degree 3

D. Not a polynomial

Answer: D

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20. Integral zeroes of the polynomial (x + 3) (x - 7) are :

A. -3,-7

B. 3,7

C. -3,7

D. 3, -7

Answer: C

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21. If $2\left(a^2+b^2\right)=(a+b)^2$ then :

A. $a + b = 0$

B. $a = b$

C. $2a = b$

D. $ab = 0$

Answer: B

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22. The sum and the product of three numbers are 0 and 30 respectively. The sum of their cubes is :

A. 0

B. 90

C. 160

D. 900

Answer: B

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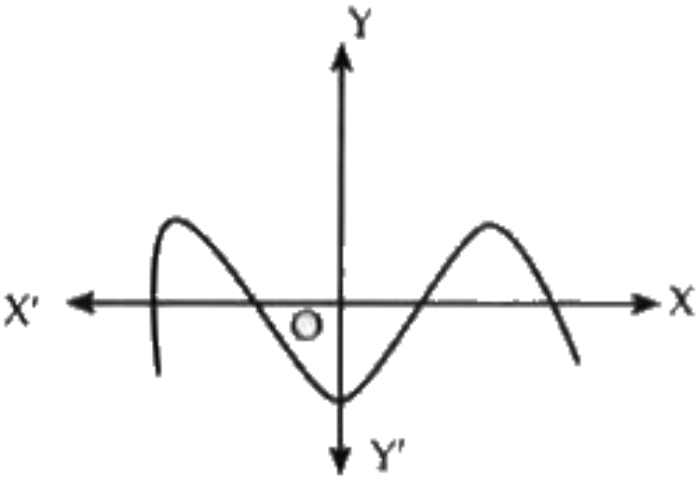
Topic 1 Degree Value And Zero Of A Polynomail Very Short Answer Type Question

1. Find the zeroes of polynomial p(x) from the graph given



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2. If $p(x) = 2 - x^2$ find the value of p(-1)?

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3. Write the degree of the polynomial $19x + \sqrt{3}x^3 + 14.$

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4. If $f(x) = x^2 - 4$ find f(4)

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5. Find the zeroes of the polynomial $4a^2 - 49$.

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6. Find the zeroes of the polynomial : $x^2 + 5x - 14$.

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7. Find the zero of the polynomial : $x^2 + 2x + 1$.

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8. Find the value of $p(x) = x^2 - 3x - 4$ at x = 0.

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9. If x = 1 is a zeru of the polynomial $f(x) = x^3 - 2x^2 + 4x + k$, write the value of k.

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10. For the polynomial $x^2 - 5x + 6$, find the sum of zeroes

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11. What are zeros of the the polynomial $x^2 - 2x - 3$?

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12. What is the degree of constant polynomial ?

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13. Write the quadratic polynomial whose zeros are $-\frac{1}{4}$ and 1

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Topic 1 Degree Value And Zero Of A Polynomail Short Answer Type Question

1. Find the zeroes of polynomial $p(x) = 6x^2 - 3 - 7x$

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2. (i) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

$\frac{1}{4}, -1$

(ii) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

$\sqrt{2}, \frac{1}{3}$

(iii) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

$0, \sqrt{5}$

(iv) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes

respectively.

$1, 1$

(v) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

$-\frac{1}{4}, \frac{1}{4}$

(vi) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

$4, 1$

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3. Solve the equation $3x^2 - 5x + 2 = 0$ by using the formula

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4. Write the degree of the polynomial $f(x) = x^2 - 3x^3 + 2$

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5. Find the degree of the following polynomials.

$x^2 - 9x + 20$

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6. Find the degree of the following polynomials.

$2x + 4 + 6x^2$

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7. Find the degree of the following polynomials.

$x^3 + 2x^2 - 5x - 6$

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8. Find the degree of the following polynomials.

$x^3 + 17x - 21 - x^2$

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9. Find the degree of the following polynomials.

$\sqrt{3}x^3 + 19x + 14$

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10. Find the values of the following polynomials:

$g(x) = 7x^2 + 2x + 14$, when x = 1

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11. Find the values of the following polynomials:

$p(x) = -x^3 + x^2 - 6x + 5$, when x = 2

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12. Find the values of the following polynomials:

$p(x) = 2x^2 + \frac{1}{4}x + 13$, when x = -1

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13. Find the values of the following polynomials:

$p(x) = 2x^4 - 3x^3 - 3x^2 + 6x - 2$, when x = -2.

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14. Verify whether the indicated numbers are zeroes of the polynomials in each of the following cases :

$f(x) = 3x + 1, x = -\frac{1}{3}$

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15. Verify whether the indicated numbers are zeroes of the polynomials in each of the following cases :

$p(x) = x^2 - 4, x = 2, x = -2$

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16. Verify whether the indicated numbers are zeroes of the polynomials in each of the following cases :

$p(x) = 5x - 8, x = \frac{4}{5}$

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17. Verify whether the indicated numbers are zeroes of the polynomials in each of the following cases :

$p(x) = 3x^3 - 5x^2 - 11x - 3, x = 3, x = -1$ and $x = -\frac{1}{3}$

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18. Find the zeroes of the quadratic polynomial $\sqrt{3}x^2 - 8x + 4\sqrt{3}$

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19. Find all the zeroes of $f(x) = x^2 - 2x$.

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20. Find the values of a and b, it they are the zeroes of polynomial $x^2 + ax + b$.

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21. If α and β are zeroes of the polynomial $f(x) = x^2 - x - k$, such that $\alpha - \beta = 9$. find k.

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22. If p,q are zeroes of polynomial $f(x) = 2x^2 - 7x + 3$ find the value of $p^2 + q^2$

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23. Find the condition that zeroes of polynomial $p(x) = ax^2 + bx + c$ are reciprocal to each other.

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24. If m and n are zeroes of the polynomial $3x^2 + 11x - 4$ find the value of $\frac{m}{n} + \frac{n}{m}$

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Topic 1 Degree Value And Zero Of A Polynomail Long Answer Type Question I

1. if $x^3 + ax^2 - bx + 10$ is divisible by $x^2 - 3x + 2$ find the value of a and b

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2. find the quotient and the remainder when $f(x) = 2x^3 - 3x^2 + 5x - 7$ is divided by g(x) = x-3 using synthetic division

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3. Find the zeros of the polynomial $p(x) = x^2 - 15x + 50$

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4. Find the zeroes of the following quadratic polynomials and verify.

$x^2 + 4x + 4$

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5. Find the zeroes of the following quadratic polynomials and verify.

$x^2 - 2x - 5$

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6. Find the zeroes of the following quadratic polynomials and verify.

$4a^2 - 49$

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7. Find the zeroes of the following quadratic polynomials and verify.

$2a^2 - 2\sqrt{2}a + 1$

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Topic 1 Degree Value And Zero Of A Polynomail Long Answer Type Question Ii

1. If the polynomial $f(x) = 3x^4 + 3x^3 - 11x^2 - 5x + 10$ is completely divisible by $3x^2 - 5$ find all its zeroes

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2. Given that $x - \sqrt{5}$ is a factor of the polynomial $x^3 - 3\sqrt{5}x^2 - 5x + 15\sqrt{5}$ find all the zeroes of the polynomial.

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Topic 2 Division Algorithm For Polynomials Very Short Answer Type Question

1. In the polynomial $g(x) = x - 2, q(x) = x^2 - x + 1$ and $r(x) = 4$ find

p(x)

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2. What is the relationship between dividend, divisor, quotient and remainder?

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Topic 2 Division Algorithm For Polynomials Short Answer Type Question

1. Find the quotient and remainder when $\left(x^6 - 2x^5 - x + 2\right)$ is devided by x-2

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2. When Polynomial $\left(2x^3 + ax^2 + 3x - 5\right)$ and $\left(x^3 + x^2 - 4x - a\right)$ are divisible by x-1 leaves the same remainder find the value of a.

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3. What must be added to the polynomial $P(x) = x^4 + 2x^3 - 2x^2 + x - 1$ So that the resulting polynomial is excatly divisible by $x^2 + x - 3$

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4. By division algorithm for polynomials

$P(x) = |g(x)q(x)| + r(x)$

$P(X) - r(x) = g(x)q(x)$

$P(x) + \{-r(x)\} = g(x)q(x)$

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5. We must be added to $2x^3 + 3x^2 - 22x + 12$ so that the result is exactly divisible by $2x^2 + 5x - 14$

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6. A polynomial p(x) is devided by g(x) the obtained quotient q(x) and the remainder r(x) are given in the table. Find p(x) in each case.

$S.I$	$p(x)$	$g(x)$	$q(x)$	$r(x)$
(a)	?	$x-2$	x^2-x+1	4

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7. A polynomial p(x) is devided by g(x) the obtained quotient q(x) and the remainder r(x) are given in the table. Find p(x) in each case.

$S.I$	$p(x)$	$g(x)$	$q(x)$	$r(x)$
(b)	?	$x+3$	$2x^2+x+5$	$3x+1$

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8. A polynomial p(x) is devided by g(x) the obtained quotient q(x) and the remainder r(x) are given in the table. Find p(x) in each case.

$S.I$	$p(x)$	$g(x)$	$q(x)$	$r(x)$
(c)	?	$2x+1$	x^3+3x^2-x+1	0

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9. A polynomial p(x) is devided by g(x) the obtained quotient q(x) and the remainder r(x) are given in the table. Find p(x) in each case.

$S.I$	$p(x)$	$g(x)$	$q(x)$	$r(x)$
(d)	?	$x+1$	x^3+3x^2-x-1	$2x-4$

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10. A polynomial p(x) is devided by g(x) the obtained quotient q(x) and the remainder r(x) are given in the table. Find p(x) in each case.

$S.I$	$p(x)$	$g(x)$	$q(x)$	$r(x)$
(e)	?	x^2+2x+1	x^4+2x^2+5x-7	$4x+12$

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11. Find the quotient and remainder on dividing p(x) by g(x)

$p(x)=4x^3+8x^2+8x+7, g(x)=2x^2-x+1$

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Topic 2 Division Algorithm For Polynomials Long Answer Type Question I

1. If the quotient obtained on dividing $\left(8x^4 - 2x^2 + 6x - 7\right)$ by $(2x + 1)$ is $\left(4x^3 + px^2 - qx + 3\right)$, then find p,q and also the remainder.

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2. Find the divisor g(x) when the polynomial $p(x) = 4x^3 + 2x^2 - 10x + 2$ is devided by g(x) and the quotient and remainder obtained are $\left(2x^2 + 4x + 1\right)$ and 5 respectively.

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3. Devide p(x) by g(x) in each of the following cases and verify division algorithm:

$p(x) = x^2 + 4x + 4, g(x) = x + 2$

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4. Devide p(x) by g(x) in each of the following cases and verify division algorithm:

$p(x) = 2x^2 - 9x + 9, g(x) = x - 3$

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5. Devide p(x) by g(x) in each of the following cases and verify division algorithm:

$p(x) = x^3 + 4x^2 - 5x + 6, g(x) = x + 1$

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6. On dividing $x^3 - 3x^2 + x + 2$ by a polynomial g(x), the quotient and remainder were x-2 and -2x+4, respectively. Find g(x).

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7. What should be added to $x^4 - 1$ so that it is exactly divisible by $2x^2 + 2x + 1$

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8. The polynomial $p(x) = ax^3 + 3x^2 - 13$ and $g(x) = 2x^3 - 4x + a$ are divided by (x-3) if the remainder in each case is the same , find the value of a.

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9. Find the quotient and remainder when $6x^4 + 11x^3 + 13x^2 - 3x + 27$ is divided by 3x + 4. Also check the remainder obtained by using remainder theorem.

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Topic 2 Division Algorithm For Polynomials Long Answer Type Question Ii

1. Find the quotient and remainder on dividing p(x) by g(x) in each of the following cases, without actual

division :

$p(x) = x^2 + 7x + 10, g(x) = x - 2$

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2. Find the quotient and remainder on dividing p(x) by g(x) in each of the following cases, without actual division :

$p(x) = x^3 + 4x^2 - 6x + 2, g(x) = x - 3$

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3. What must be subtracted from $\left(x^3 + 5x^2 + 5x + 8\right)$ so that the resulting

polynomial Is excatly divisible by $\left(x^2+3x-2\right)$?

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4. If the polynomial $x^4-6x^3+16x^2-25x+10$, is divided by another polynomial x^2-2x+k, the reminder comes out to be $x+a$, find k and a.

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Topic 3 Remainder Theorem Multiple Choice Question

1. The remainder when $p(x)=2x^2-x-6$ is divided by (x - 2) is equal to :

A. P(-2)

B. P(2)

C. P(3)

D. P(-3)

Answer: b

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2. On dividing $5y^3 - 2y^2 - 7y + 1$ by y, what will be the remainder ?

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Topic 3 Remainder Theorem Short Answer Type Question

1. Find the value of a if (x - 5) is a factor of $\left(x^3 - 3x^2 + ax - 10\right)$

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2. The polynomials $ax^3 + 3x^2 - 13$ and $2x^3 - 4x + a$ are divided by (x-3). If the remainder is same in each case, find the value of a.

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3. If $f(x) = 2x^3 + 3x^2 - 11x + 6$ find

f(0)

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4. If $f(x) = 2x^3 + 3x^2 - 11x + 6$ find

f(1)

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5. If $f(x) = 2x^3 + 3x^2 - 11x + 6$ find

f(-1)

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6. If $f(x) = 2x^3 + 3x^2 - 11x + 6$ find

f(2)

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Topic 3 Remainder Theorem Long Answer Type Question I

1. Using the remainder theorem, find the remainder when $p(x) = x^3 + 3x^2 - 5x + 8$ is divided by g(x) = x- 3. Verify the result by actual division.

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2. Without actual division, show that $f(x) = 2x^4 - 6x^3 + 3x^2 + 3x - 2$ is exactly divisible by $x^2 - 3x + 2$.

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3. Devide $x^3 + 4x^2 - 3x - 10$ by x+1 and verify your remainder by remainder theorem.

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Topic 3 Remainder Theorem Long Answer Type Question Ii

1. The polynomial $x^3 + 2x^2 - 5ax - 8$ and $x^3 + ax^2 - 12 - 6$ when devided by (x-2) and (x-3) leave remainder p and q respectively. If q-p=10 find the value of a .

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Topic 4 Factor Theorem And Factorization Multiple Choice Question

1. Factorisation of $x^3 + 1$ is :

A. $(x+1)(x^2 - x + 1)$

B. $(x+1)(x^2 + 1)$

C. $(x+1)(x^2+x+1)$

D. $(x-1)(x^2-x-1)$

Answer:

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Topic 4 Factor Theorem And Factorization Short Answer Type Question

1. In each of the following cases, use factor theorem to find whether g(x) is a factor of the polynomial p(x) or not.

$p(x) = x^3 - 3x^2 + 6x - 20 g(x) = x - 2$

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2. In each of the following cases, use factor theorem to find whether g(x) is a factor of the polynomial p(x) or not.

$p(x) = 2x^4 + x^3 + 4x^2 - x - 7g(x) = x + 2$

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3. In each of the following cases, use factor theorem to find whether g(x) is a factor of the polynomial p(x) or not.

$p(x) = 3x^4 + 3x^2 - 4x - 11g(x) = x - \frac{1}{2}$

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4. In each of the following cases, use factor theorem to find whether g(x) is a factor of the polynomial p(x) or not.

$p(x) = 3x^3 + x^2 - 20x + 12 g(x) = 3x - 2$

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5. In each of the following cases, use factor theorem to find whether g(x) is a factor of the polynomial p(x) or not.

$p(x) = 2x^4 + 3x^3 - 2x^2 - 9x - 12, g(x) = x^2 - 3$

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6. Verify $x^3 - y^3 = (x - y)\left(x^2 + y^2 + xy\right)$ Hence factorise $216x^3 - 125y^3$

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Topic 4 Factor Theorem And Factorization Long Answer Type Question Ii

1. If both (x-2) and $\left(x - \frac{1}{2}\right)$ are factors of $\left(ax^2 + 5x + b\right)$ show that a=b

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2. Find the values of a and b if $x^2 - 4$ is a factor of $ax^4 + 2x^3 - 3x^2 + bx - 4$ and hence factorise it completely.

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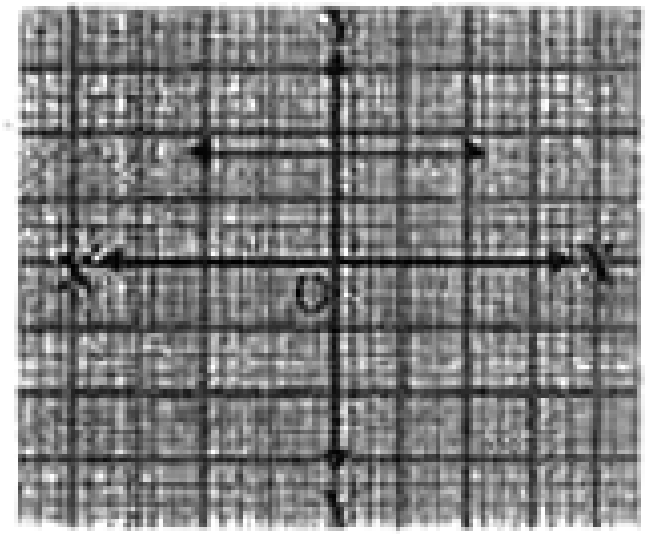
Textbook Corner Exercise 9 1

1. The graphs of y= p(x) are given in figure below for some polynomial p(x) find number of zeroes of p(x) in

each case.



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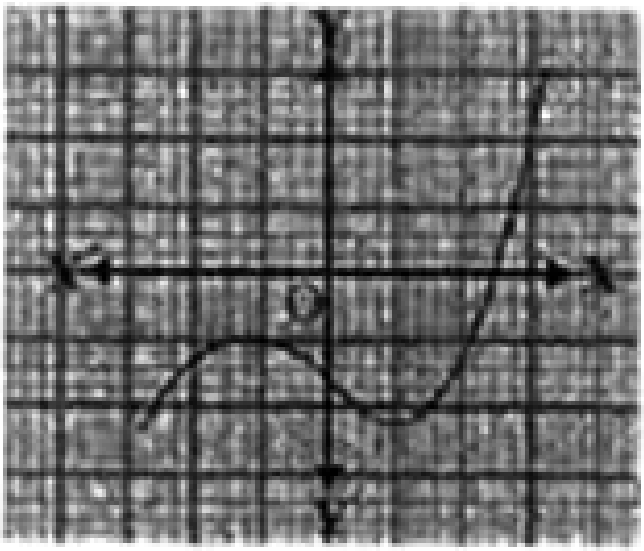
2. The graphs of y= p(x) are given in figure below for some polynomial p(x) find number of zeroes of p(x) in

each case.



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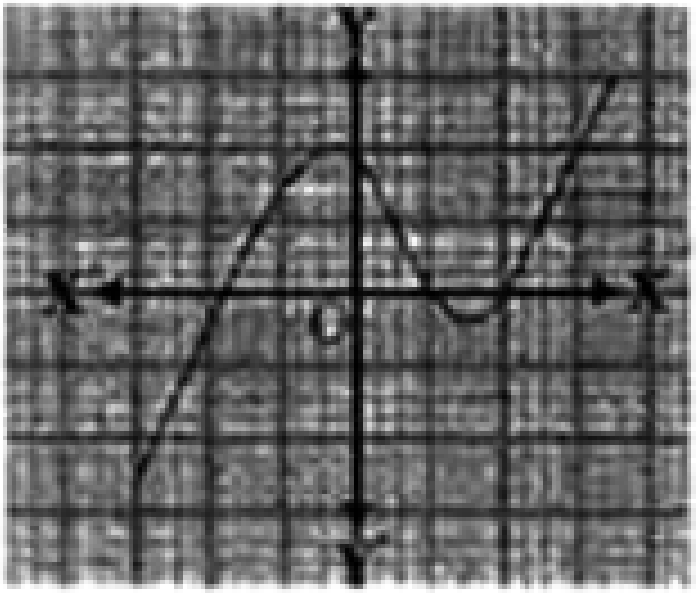
3. The graphs of y= p(x) are given in figure below for some polynomial p(x) find number of zeroes of p(x) in

each case.



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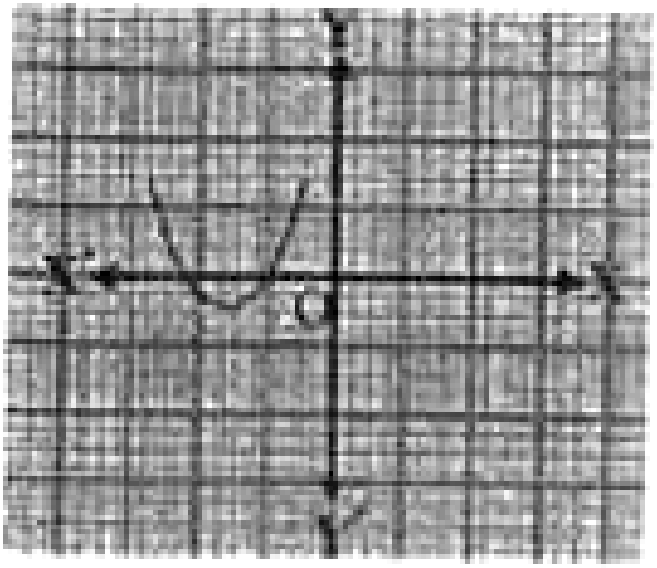
4. The graphs of y= p(x) are given in figure below for some polynomial p(x) find number of zeroes of p(x) in

each case.



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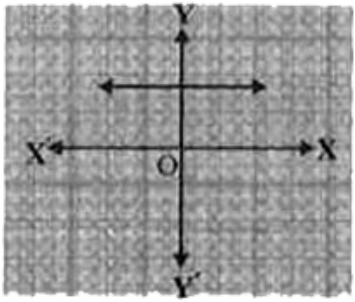
5. (i) The graphs of y p(x) are given in Fig. below, for some polynomials p(x). Find the number of zeroes of p(x), in each case.



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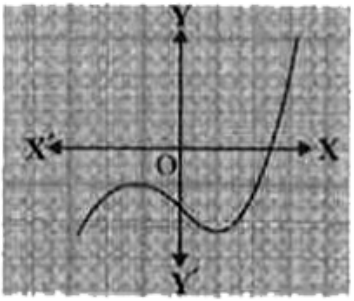

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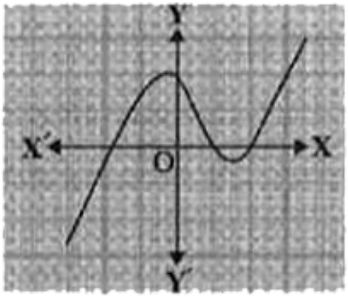

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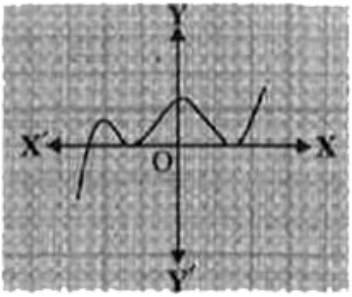

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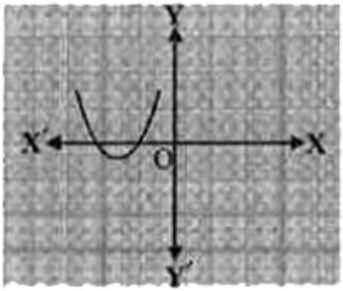
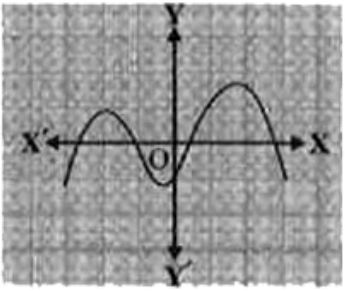


(iv)



(v)

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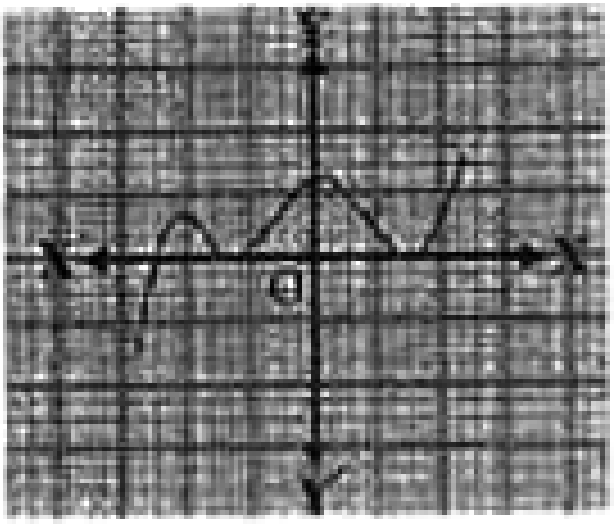
6. The graphs of y= p(x) are given in figure below for some polynomial p(x) find number of zeroes of p(x) in each case.



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Textbook Corner Exercise 9 2

1. Find the zeroes of the following quadratic polynomial and verify the relationship between the zeroes and the coefficients.

$x^2 - 2x - 8$

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2. Find the zeroes of the following quadratic polynomial and verify the relationship between the zeroes and the coefficients.

$4s^2 - 4s + 1$

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3. Find the zeroes of the following quadratic polynomials and varify the relationship between the zeroes and the coefficients.

$6x^2 - 7x - 3$

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4. Find the zeroes of the following quadratic polynomials and varify the relationship between the zeroes and the coefficients.

$4u^2 + 8u$

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5. Find the zeroes of the following quadratic polynomial and verify the relationship between the zeroes and the coefficients.

$t^2 - 15$

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6. Find the zeroes of the following quadratic polynomials and varify the relationship between the zeroes and the coefficients.

$3x^2 - x - 4$

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7. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$\frac{1}{4}, -1$

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8. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$\sqrt{2}, \frac{1}{3}$

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9. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$0, \sqrt{5}$

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10. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$1, 1$

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11. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$-\frac{1}{4}, \frac{1}{4}$

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12. Find a quadratic polynominal each with the given numbers as the sum and product of its zeroes respectively.

$4, 1$

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Textbook Corner Exercise 9 3

1. Divide p(x) by g(x) and find the quotient and remainder :

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

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2. (i) Divide the polynomial p(x) by the polynomial g(x) and find the quotient and remainder in each of the following:

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

(ii) Divide the polynomial p(x) by the polynomial g(x) and find the quotient and remainder in each of the

following:

$p(x) = x^4 - 3x^2 + 4x + 5, g(x) = x^2 + 1 - x$

(iii) Divide the polynomial p(x) by the polynomial g(x) and find the quotient and remainder in each of the following:

$p(x) = x^4 - 5x + 6, g(x) = 2 - x^2$

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3. Divide p(x) by g(x) and find the quotient and remainder :

$p(x) = x^4 - 5x + 6, g(x) = 2 - x^2$

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4. Check whether the first polynomial is a factor of the second polynomial by dividing :

$t^2 - 3, 2t^4 + 3t^3 - 2t^2 - 9t - 12$

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5. Check whether the first polynomial is a factor of the second polynomial by dividing :

$x^2 + 3x + 1, 3x^4 + 5x^3 - 7x^2 + 2x + 2$

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6. Check whether the first polynomial is a factor of the second polynomial by dividing :

$x^3 - 3x + 1, x^5 - 4x^3 + x^2 + 3x + 1$

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7. Obtain all other zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$, if two of its zeroes are $\sqrt{\frac{5}{3}}$ and $-\sqrt{\frac{5}{3}}$

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8. On dividing $x^3 - 3x^2 + x + 2$ by a polynomial g(x), the quotient and remainder were x-2 and -2x+4, respectively. Find g(x).

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9. Give examples of polynomials p(x), g(x), q(x) and r(x), which satisfy the division algorithm and

deg p(x) = deg q(x)

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10. Give examples of polynomials p(x), g(x), q(x) and r(x), which satisfy the division algorithm and

deg q(x) = deg r(x)

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11. Give examples of polynomials p(x), g(x), q(x) and r(x), which satisfy the division algorithm and

deg r(x) = 0

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Textbook Corner Exercise 9 4

1. (i) Verify that the numbers given alongside of the cubic polynomials below are their zeroes. Also verify the relationship between the zeroes and the coefficients in this case:

$2x^2 + x^2 - 5x + 2, \frac{1}{2}, 1, -2$

(ii) Verify that the numbers given alongside of the cubic polynomials below are their zeroes. Also verify the relationship between the zeroes and the coefficients in this case:

$x^3 - 4x^2 + 5x - 2, 2, 1, 1$

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2. (i) Verify that the numbers given alongside of the cubic polynomials below are their zeroes. Also verify the relationship between the zeroes and the coefficients in this case:

$2x^2 + x^2 - 5x + 2, \frac{1}{2}, 1, -2$

(ii) Verify that the numbers given alongside of the cubic polynomials below are their zeroes. Also verify the relationship between the zeroes and the coefficients in this case:

$x^3 - 4x^2 + 5x - 2, 2, 1, 1$

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3. Find a cubic polynomial with the sum, sum of the product of its zeroes taken two at a time, and the product of its zeroes as 2, -7, -14 respectively.

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4. If the zeroes of the polynomial $x^3 - 3x^2 + x + 1$ are $a - b$, a, $a + b$, find a and b.

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5. If the zeroes of the polynomial $x^4 - 6x^3 - 26x^2 + 138x - 35$ are $2 \pm \sqrt{3}$ Find other

zeroes.

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6. If the polynomial $x^4 - 6x^3 + 16x^2 - 25x + 10$, is divided by another polynomial $x^2 - 2x + k$, the reminder comes out to be $x + a$, find k and a.

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