EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Polynomials

Grade : CBSE Grade X

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1. $(4x^4+x^3)\div x^2$

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

2. If $(x-a)$ is a factor of $x^3 - ax^2 + 6x + 6$, find the value of a

   (i) (-2) (ii) (-4) (iii) 1 (iv) (-1) (v) 0

3. The remainder when $(-2j^4+4j^3-j^2+9j)$ is divided by $(j^2-7j-18)$ is

   (i) $(-918j-1926)$ (ii) $(-920j-1926)$ (iii) $(-921j-1926)$ (iv) $(-919j-1926)$ (v) $(-922j-1926)$

4. Which of the following are not polynomials?

   a) $(10x+4y)$

   b) $100x^2+\frac{1}{100x^2}$

   c) $100x^2$

   d) $(10x-y)$

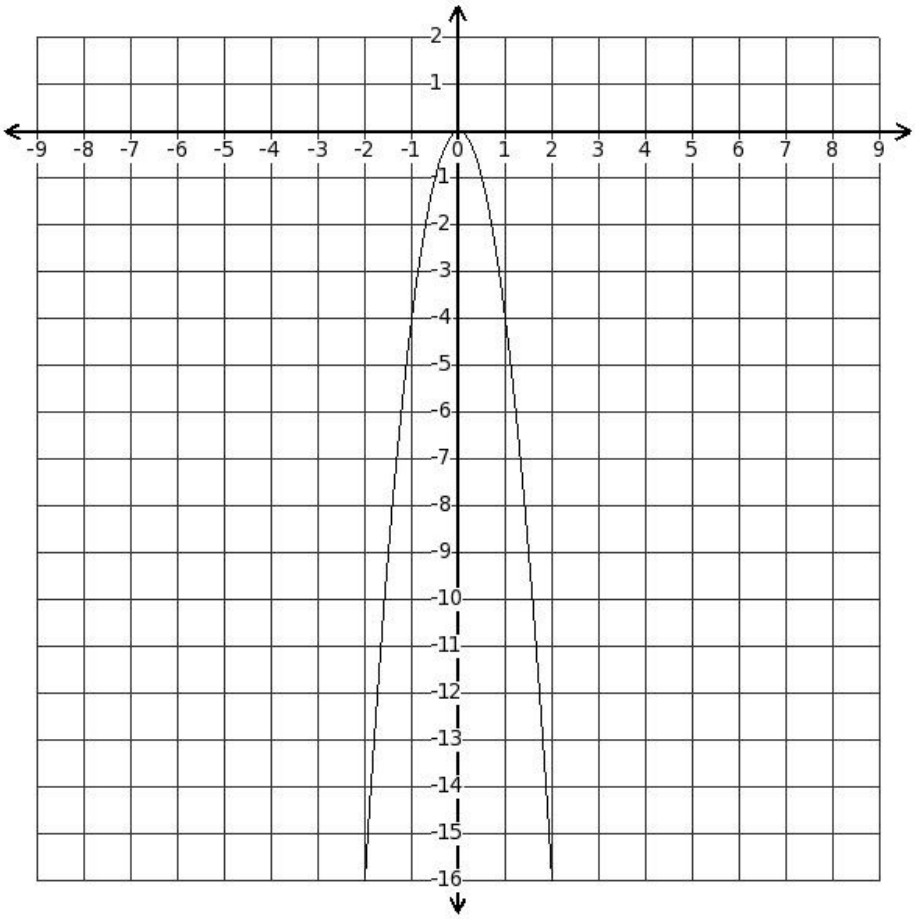
   e) √x

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

5. $(27x^4-81x^3+51x^2+9x-6)\div(-9x^3+24x^2-9x-6)=$

   (i) $(-3x-1)$ (ii) $(-4x+1)$ (iii) $(3x+1)$ (iv) $(-2x+1)$ (v) $(-3x+1)$

6. Find the table of points that satisfy the parabola equation $y=(-4x^2)$



(i)

x	-2	-1	0	0	2
y	-16	-4	0	-3	-16

(ii)

x	-2	-1	0	1	2
y	-16	-4	0	-4	-16

(iii)

x	-2	-1	1	1	2
y	-16	-4	-1	-4	-16

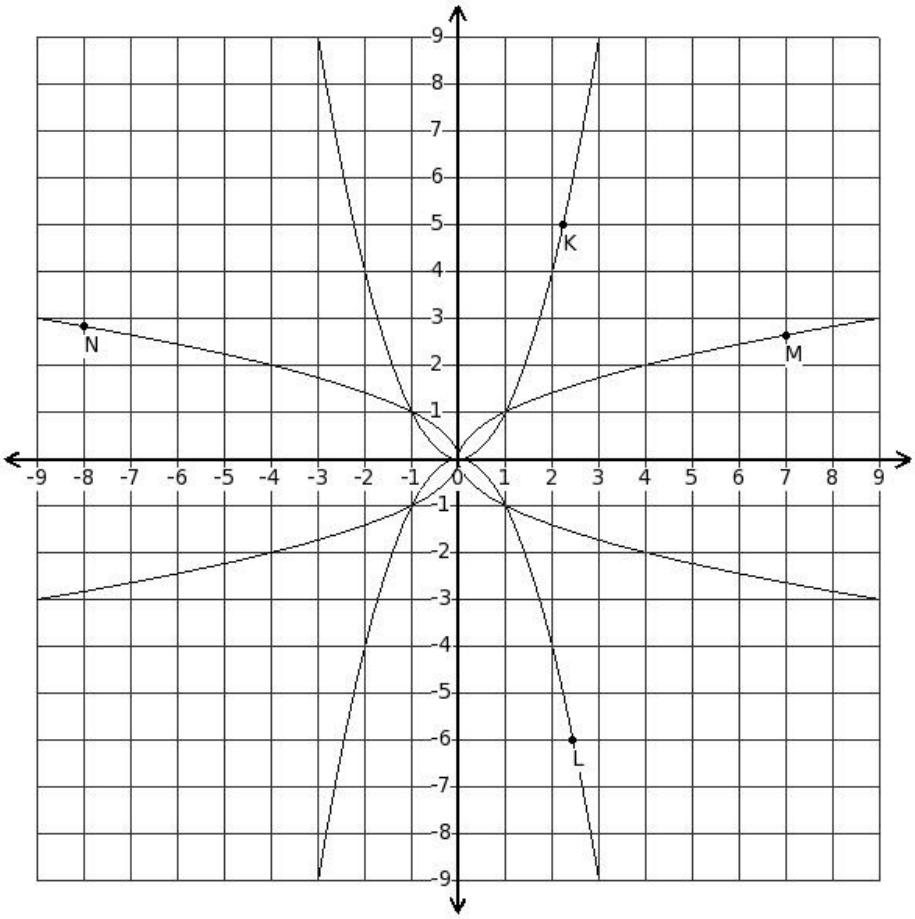
(iv)

x	-2	-1	-2	1	2
y	-16	-4	-2	-4	-16

(v)

x	-2	-1	0	1	4
y	-16	-4	0	-4	-14

7. Which of the displayed parabolae represent the equation $y=(-x^2)$



(i) parabola with point K (ii) parabola with point M (iii) parabola with point L (iv) parabola with point N

8. If $f(x)=(2x^3+8x^2-2x-8)$ and $g(x)=(2x^3-x^2-12x-9)$ have a common factor, find the common factor

(i) $(2x-2)$ (ii) $(x-3)$ (iii) $(x+1)$ (iv) $(2x+3)$ (v) $(x+4)$

9. Which of the following are true?

a) The curve of a parabola is a curve
b) The curve of a parabola lie in only one quadrant
c) The curve of a parabola is a circle
d) The curve of a parabola is a closed figure
e) The curve of a parabola is a straight line
f) The curve of a parabola $y=ax^2+bx+c$ always croses the X-axis

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

10. The sum of the roots of the quadratic equation $(9x^2-18x+9)=0$ is

(i) -1 (ii) 4 (iii) 1 (iv) 2 (v) 3

11. Which of the following is an irreducible factor of $6x^5y^5z^2$?

(i) xz^2 (ii) y^5z (iii) $x^2y^5z^2$ (iv) x (v) x^2y

12. $(6x^4-40x^3-118x^2-72x)\div(2x^2-16x-18)$

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

13. The quotient when $(-v^4-8v^3-6v^2-v-1)$ is divided by $(v^2+2v-48)$ is

(i) $(-3v^2-6v-42)$ (ii) $(-6v-42)$ (iii) $(2v^2-6v-42)$ (iv) $(-v^2-6v-42)$ (v) $(-2v^2-6v-42)$

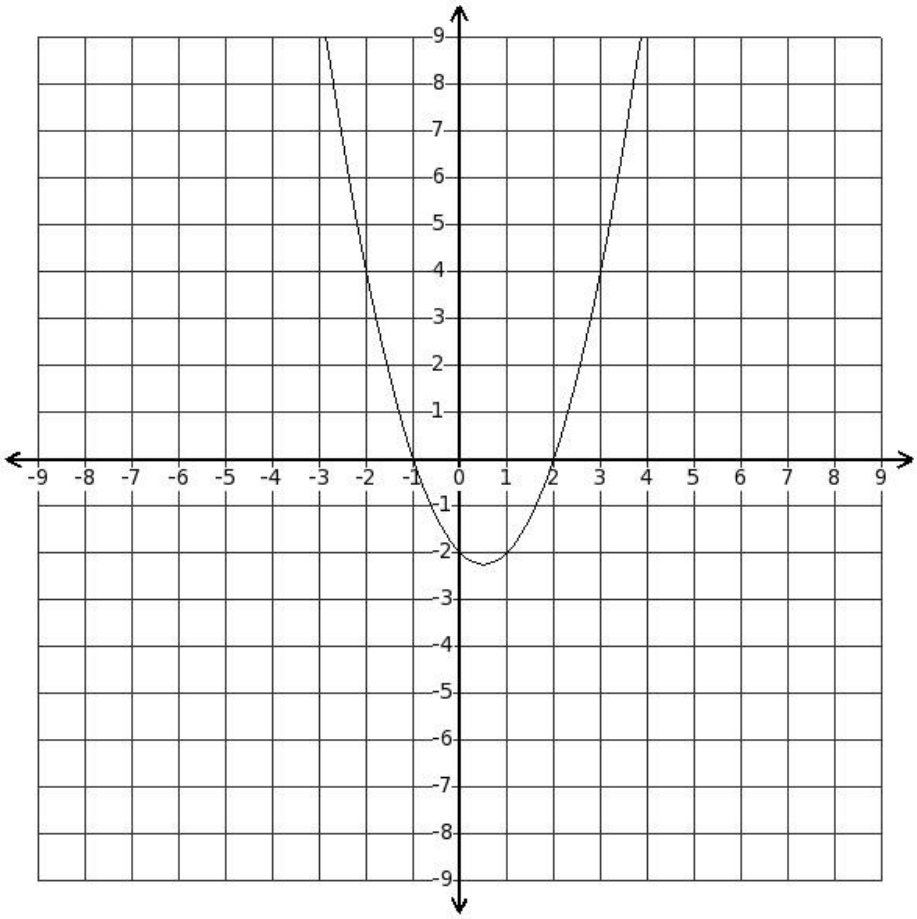
14. Find the quadratic polynomial which when divided by $(2x+5)$, $(2x-8)$, $(x-4)$ leaves remainders of $\frac{95}{4}$, 170, 170 respectively.

(i) $(9x^2+9x-10)$ (ii) $(2x^2-16x+32)$ (iii) $(3x^2-7x-20)$ (iv) $(4x^2-6x-40)$ (v) $(6x^2+11x-10)$

15. Given $f(h)=(3h^3-8h^2-4h)$, find $f(2)$

(i) -18 (ii) -16 (iii) -14 (iv) -15 (v) -17

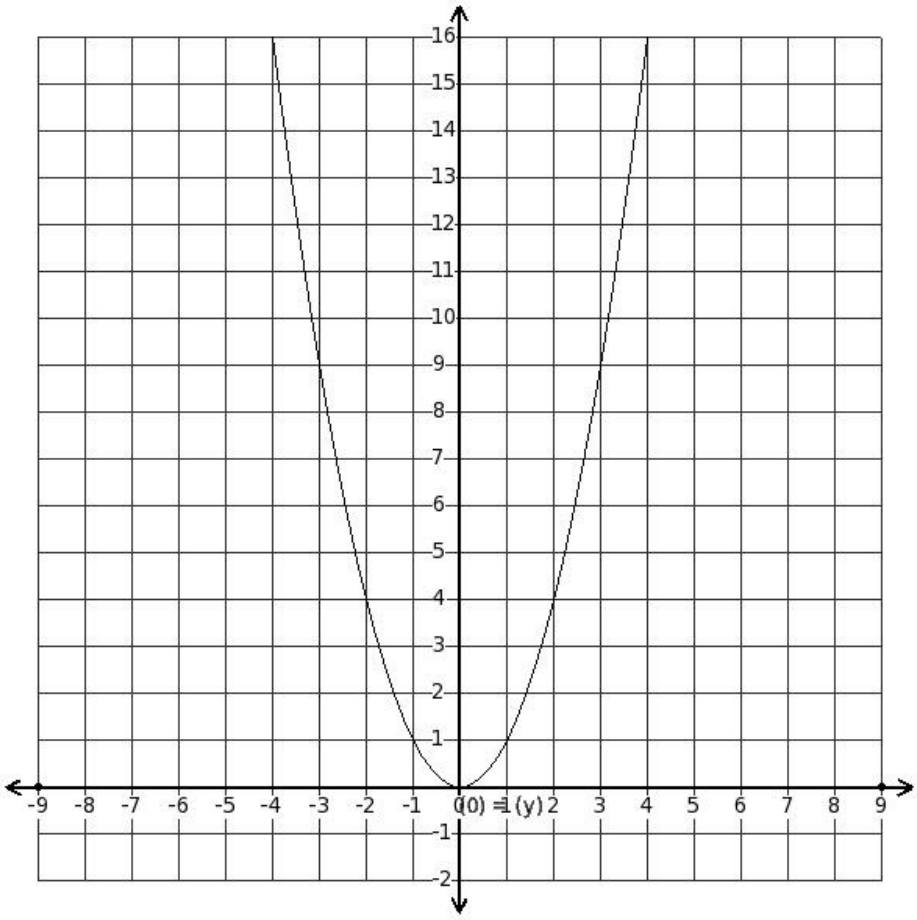
16. Find the roots of the quadratic equation $(x^2-x-2)=0$



(i) (3,0) (ii) (6,-1) (iii) no real roots (iv) (3,-1) (v) (2,-1)

17. The parabola is $y = x^2$ and

line equation is $y = 0$. Find the quadratic equation.

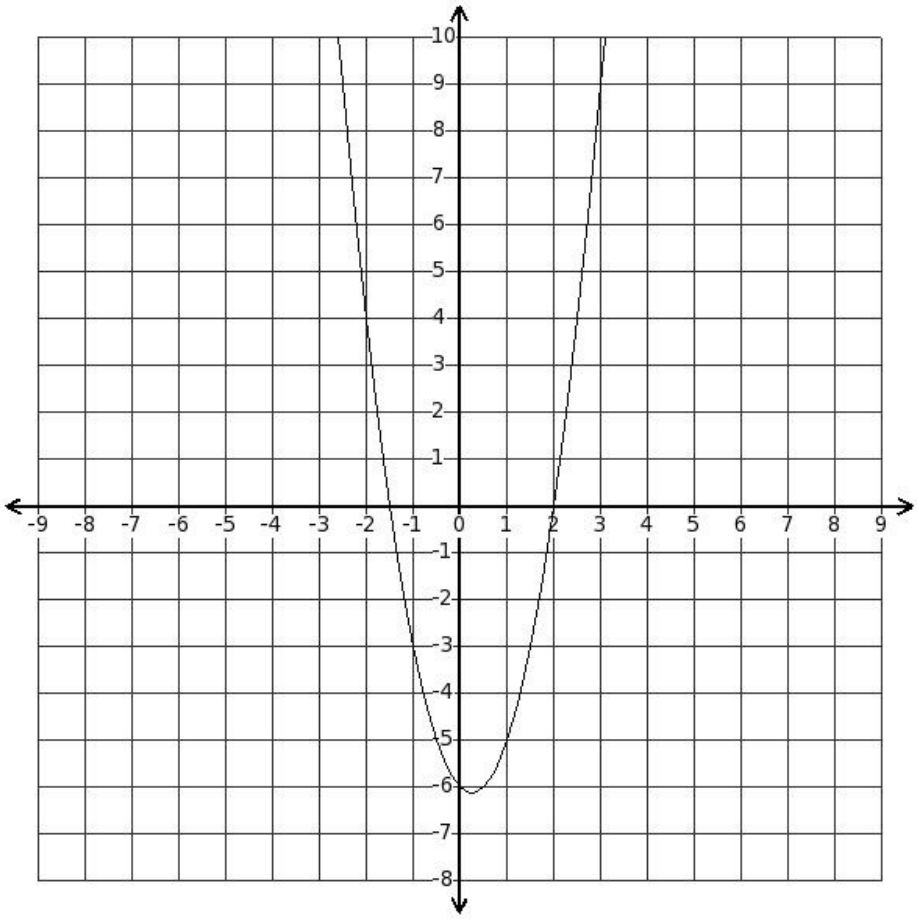


(i) $(-2x^2) = 0$ (ii) $x^2 = 0$ (iii) $0 = 0$ (iv) $2x^2 = 0$ (v) $3x^2 = 0$

18. Which of the following algebraic expressions is a cubic polynomial?

(i) $(9a^3 - 5a^2 + 9a + 6)$ (ii) $(3a^2 + 3a - 7)$ (iii) $(4a - 4)$ (iv) $(2a^5 - 5a^4 - 3a^2 - 5a - 5)$ (v) (-5)

19. Find the table of points that satisfy the parabola equation $y=(2x^2-x-6)$



(i)

x	-2	-1	0	1	2
y	4	-3	-6	-5	0

(ii)

x	-2	-1	0	1	4
y	4	-3	-6	-5	2

(iii)

x	-2	-1	0	0	2
y	4	-3	-6	-4	0

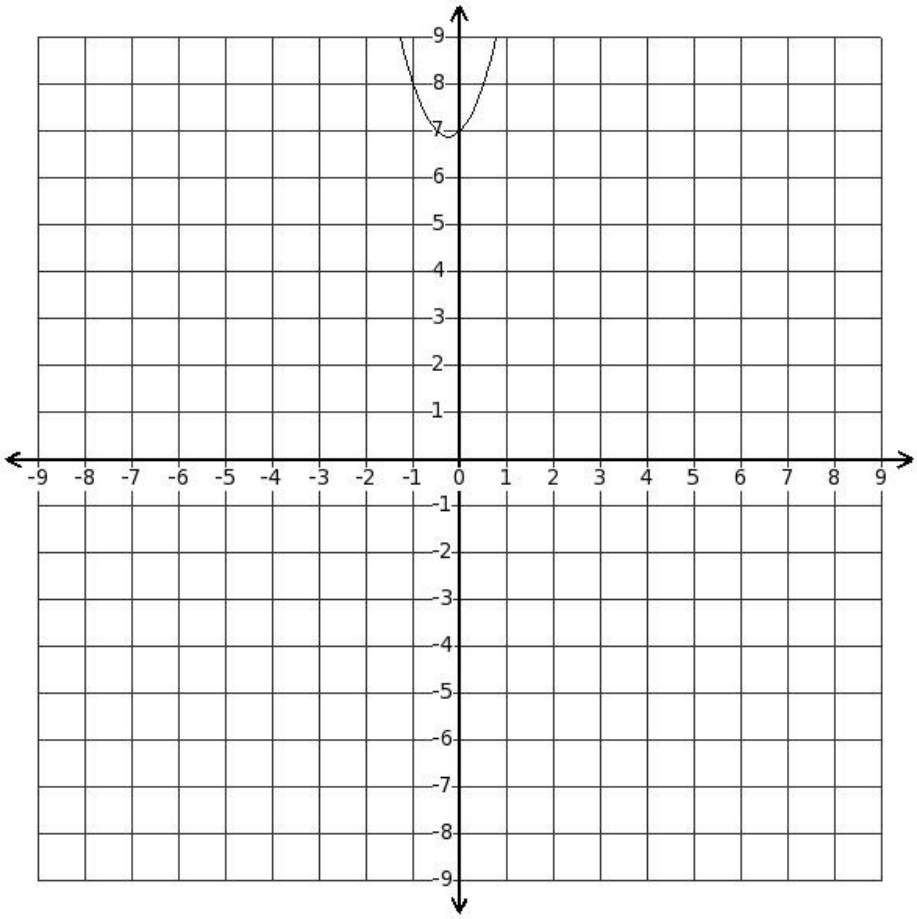
(iv)

x	-2	-1	-2	1	2
y	4	-3	-8	-5	0

(v)

x	-2	-1	1	1	2
y	4	-3	-7	-5	0

20. Find the roots of the quadratic equation $(2x^2+x+7)=0$



(i) $(1,0)$ (ii) no real roots (iii) $(1,1)$ (iv) $(4,0)$

21. Which of the following algebraic expressions is a linear polynomial?

(i) $(2h^2-2h+4)$ (ii) $(-6h+2)$ (iii) (-7) (iv) $(7h^3+6h^2-3h-1)$ (v) $(-9h^5-9h^4-3h^2+6h-8)$

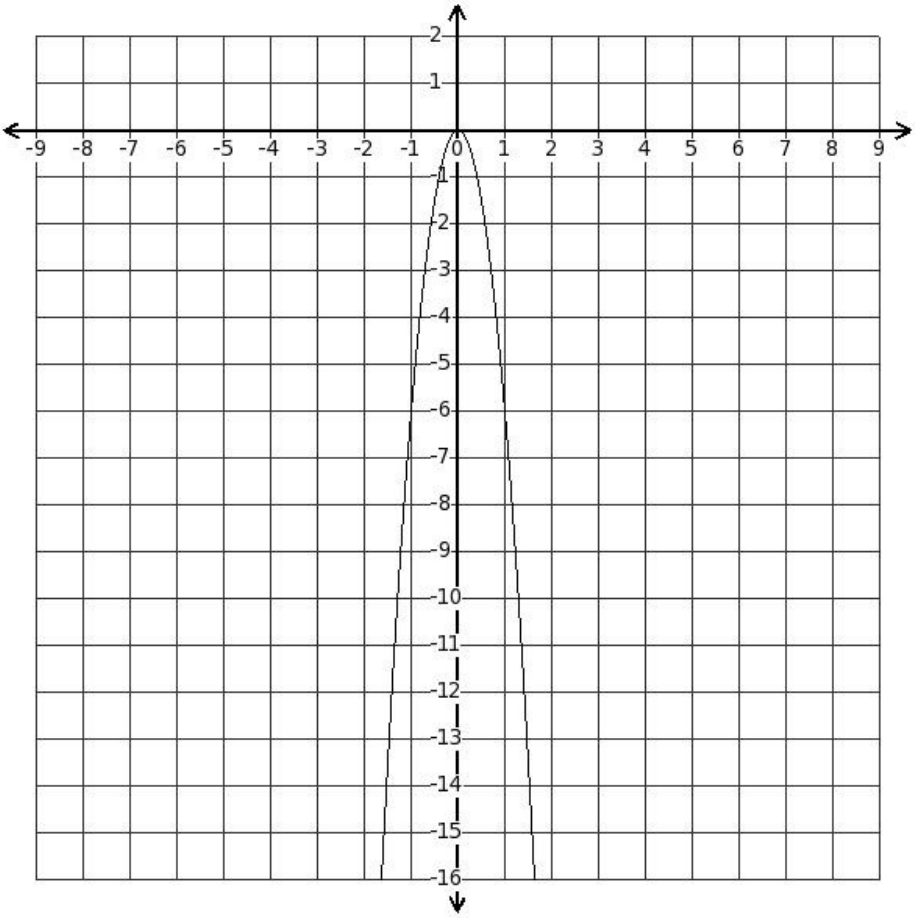
22. $(36x^3y^2+180x^2y^3)\div 6xy=$

(i) $(6x^3y^3+30xy^2)$ (ii) $(6x^3y^2+30xy^2)$ (iii) $(6x^2y+30xy^3z)$ (iv) $(6x^2y+30xy^2)$ (v) $(6x^2y+30y^3)$

23. The remainder when $(-6c^2-8c)$ is divided by $(c-6)$ is

(i) (-263) (ii) (-265) (iii) (-266) (iv) (-261) (v) (-264)

24. Which of the following equations represents the given graph ?



(i) $y=(-7x^2)$ (ii) $y=(-6x^2)$ (iii) $y=(-4x^2)$ (iv) $y=(-8x^2)$ (v) $y=(-5x^2)$

25. If -5 is the zero of the polynomial $f(x)=2x^2+7x+k$, find k

(i) -15 (ii) -14 (iii) -13 (iv) -16 (v) -17

Assignment Key

1) (i)	2) (iv)	3) (ii)	4) (iv)	5) (v)	6) (ii)
7) (iii)	8) (iii)	9) (iv)	10) (iv)	11) (iv)	12) (iii)
13) (iv)	14) (i)	15) (ii)	16) (v)	17) (ii)	18) (i)
19) (i)	20) (ii)	21) (ii)	22) (iv)	23) (v)	24) (ii)
25) (i)					

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