EduSahara™ Assignment

Name : Quadratic Equations Miscellaneous

Chapter : Quadratic Equations

Grade : CBSE Grade X

1. Solve : $\frac{(x-1)}{(3x+2)}=\frac{(2x+4)}{(8x+3)}$

(i) $(11,(\frac{-1}{2}))$ (ii) $(9,(\frac{-3}{2}))$ (iii) $(10,-1)$ (iv) $(14,\frac{1}{2})$ (v) $(-11,\frac{1}{2})$

2. Solve : $\frac{(x+4)}{(x+6)}+\frac{(x-2)}{(x-5)}=\frac{87}{26}$

(i) $((\frac{-256}{35}),5)$ (ii) $((\frac{-254}{35}),7)$ (iii) $((\frac{-268}{37}),8)$ (iv) $((\frac{-80}{11}),6)$ (v) $((\frac{-36}{5}),9)$

3. Solve : $(x^2-9x)^2-17(x^2-9x)+72=0$

(i) $(\frac{9}{2}+\frac{3}{2}\sqrt{13}),(\frac{9}{2}-\frac{3}{2}\sqrt{13}),(\frac{9}{2}+\frac{1}{2}\sqrt{113}),(\frac{9}{2}-\frac{1}{2}\sqrt{113})$

(ii) $(\frac{7}{2}+\frac{3}{2}\sqrt{13}),(\frac{7}{2}-\frac{3}{2}\sqrt{13}),(\frac{7}{2}+\frac{1}{2}\sqrt{113}),(\frac{7}{2}-\frac{1}{2}\sqrt{113})$

(iii) $(\frac{9}{2}+\frac{3}{2}\sqrt[4]{13}),(\frac{9}{2}-\frac{3}{2}\sqrt[4]{13}),(\frac{9}{2}+\frac{1}{2}\sqrt[4]{113}),(\frac{9}{2}-\frac{1}{2}\sqrt[4]{113})$ (iv) $(\frac{9}{2}+\frac{39}{2}),(\frac{9}{2}-\frac{39}{2}),(\frac{9}{2}+\frac{113}{2}),(\frac{9}{2}-\frac{113}{2})$

(v) $(\frac{11}{2}+\frac{3}{2}\sqrt{13}),(\frac{11}{2}-\frac{3}{2}\sqrt{13}),(\frac{11}{2}+\frac{1}{2}\sqrt{113}),(\frac{11}{2}-\frac{1}{2}\sqrt{113})$

4. Solve : $(x^4-13x^2+36)=0$

(i) $0,(-6),(-1),(-5)$ (ii) $4,(-2),3,(-1)$ (iii) $3,(-3),2,(-2)$ (iv) $2,(-4),1,(-3)$ (v) $6,0,5,0$

5. Solve : $(x-7)(x-6)(x-5)(x-4)=3024$

(i) $15,1$ (ii) $12,(-3)$ (iii) $11,(-4)$ (iv) $13,(-2)$ (v) $14,(-1)$

6. For what values of k are the roots of $(k-14)x^2+(k+58)x+(k+31)=0$ equal

(i) $((-33),49)$ (ii) $((-34),50)$ (iii) $((-33),50)$ (iv) $((-32),49)$ (v) $((-32),47)$

7. If p and q are the roots of $(x^2+x-12)=0$, find the equation whose roots are $p+\frac{1}{q}$ and $q+\frac{1}{p}$

(i) $(6x^2+7x-55)=0$ (ii) $(4x^2+9x-55)=0$ (iii) $(12x^2+5x-143)=0$ (iv) $(12x^2+19x-143)=0$

(v) $(12x^2+11x-121)=0$

8. If -7 is the root of $(x^2+kx+14)=0$, find k and the other root

(i) $k=8$, and the other root $=-3$ (ii) $k=10$, and the other root $=-1$ (iii) $k=12$, and the other root $=1$

(iv) $k=9$, and the other root $=-2$ (v) $k=7$, and the other root $=-5$

9. If ax^2+bx+c is exactly divisible by $(x-8),(x-6)$ and leaves a remainder of 8 when divided by $(x-4)$, find a, b and c

(i) $a=1, b=-13, c=49$ (ii) $a=1, b=-14, c=48$ (iii) $a=1, b=-12, c=50$ (iv) $a=1, b=-15, c=47$

(v) $a=1, b=-17, c=46$

10. Find a and b in order that $(x^3-7x^2)+(ax+b)$ may be exactly divisible by (x^2+x-20)

(i) $a=-27, b=161$ (ii) $a=-30, b=157$ (iii) $a=-28, b=160$ (iv) $a=-29, b=159$ (v) $a=-25, b=163$

11. Find the quadratic equation with roots $(\frac{-9}{5}),(\frac{-9}{5})$

(i) $(25x^2+80x+63)=0$ (ii) $(25x^2+100x+99)=0$ (iii) $(35x^2+108x+81)=0$ (iv) $(25x^2+90x+81)=0$

(v) $(5x^2+24x+27)=0$

Assignment Key

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