1. Solve : $\frac{(38x+1)}{(27x+1)}=\frac{(45x+1)}{(32x+1)}$

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

2. Solve : $\frac{(x+2)}{(x-8)}+\frac{(x-4)}{(x-6)}=\frac{86}{15}$

(i) $(\frac{89}{14},13)$ (ii) $(\frac{25}{4},10)$ (iii) $(\frac{99}{16},12)$ (iv) $(\frac{87}{14},11)$ (v) $(\frac{85}{14},8)$

3. Solve : $(x^2-3x)^2-14(x^2-3x)+48=0$

(i) $(\frac{1}{2}+\frac{1}{2}\sqrt{41}),(\frac{1}{2}-\frac{1}{2}\sqrt{41}),(\frac{1}{2}+\frac{1}{2}\sqrt{33}),(\frac{1}{2}-\frac{1}{2}\sqrt{33})$

(ii) $(\frac{3}{2}+\frac{1}{2}\sqrt[4]{41}),(\frac{3}{2}-\frac{1}{2}\sqrt[4]{41}),(\frac{3}{2}+\frac{1}{2}\sqrt[4]{33}),(\frac{3}{2}-\frac{1}{2}\sqrt[4]{33})$

(iii) $(\frac{5}{2}+\frac{1}{2}\sqrt{41}),(\frac{5}{2}-\frac{1}{2}\sqrt{41}),(\frac{5}{2}+\frac{1}{2}\sqrt{33}),(\frac{5}{2}-\frac{1}{2}\sqrt{33})$ (iv) $(\frac{3}{2}+\frac{41}{2}),(\frac{3}{2}-\frac{41}{2}),(\frac{3}{2}+\frac{33}{2}),(\frac{3}{2}-\frac{33}{2})$

(v) $(\frac{3}{2}+\frac{1}{2}\sqrt{41}),(\frac{3}{2}-\frac{1}{2}\sqrt{41}),(\frac{3}{2}+\frac{1}{2}\sqrt{33}),(\frac{3}{2}-\frac{1}{2}\sqrt{33})$

4. Solve : $(x^4-14x^2+48)=0$

(i) $2\sqrt{2},(-2\sqrt{2}),\sqrt{6},(-\sqrt{6})$ (ii) $2\sqrt[4]{2},(-2\sqrt[4]{2}),\sqrt[4]{6},(-\sqrt[4]{6})$ (iii) $2\sqrt{4},(-2\sqrt{4}),\sqrt{8},(-\sqrt{8})$

(iv) $2\sqrt{-1},(-2\sqrt{-1}),\sqrt{4},(-\sqrt{3})$ (v) $4,(-4),6,(-6)$

5. Solve : $(x+4)(x+5)(x+6)(x+7)=840$

(i) $3,(-9)$ (ii) $1,(-10)$ (iii) $0,(-11)$ (iv) $(-1),(-12)$ (v) $(-2),(-13)$

6. For what values of k are the roots of $(k+14)x^2+(k-49)x+(k-66)=0$ equal

(i) $((-\frac{89}{3}),66)$ (ii) $((-\frac{91}{3}),67)$ (iii) $((-\frac{151}{5}),67)$ (iv) $((-\frac{89}{3}),65)$ (v) $((-\frac{151}{5}),66)$

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

(i) $(2x^2+x-1)=0$ (ii) $(2x^2-x-3)=0$ (iii) $(2x^2+3x-2)=0$ (iv) $(4x^2+3x-1)=0$ (v) $(2x^2+7x-4)=0$

8. If 6 is the root of $(x^2+kx-6)=0$, find k and the other root

(i) k=-2, and the other root =1 (ii) k=-6, and the other root =-2 (iii) k=-5, and the other root =-1

(iv) k=-4, and the other root =0 (v) k=-7, and the other root =-4

9. If $ax^2 + bx + c$ is exactly divisible by $(x+2), (x-3)$ and leaves a remainder of 14 when divided by $(x+4)$, find a, b and c

(i) a=1, b=-2, c=-7 (ii) a=1, b=2, c=-3 (iii) a=1, b=-4, c=-9 (iv) a=1, b=0, c=-5 (v) a=1, b=-1, c=-6

10. Find a and b in order that $(x^3-6x^2) + (ax+b)$ may be exactly divisible by $(x^2-2x-63)$

(i) a=-58, b=249 (ii) a=-54, b=253 (iii) a=-55, b=252 (iv) a=-53, b=255 (v) a=-56, b=251

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

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

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

Assignment Key

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