

**Ex 4.1****NCERT Solutions by Dev Anoop (Bathinda)**

$$\textcircled{i} (x+1)^2 = 2x-3$$

$$\Rightarrow x^2+1+2x = 2x-3$$

$$\Rightarrow x^2+4=0$$

$\therefore$  it is of the form  $ax^2+bx+c=0$  where  $a, b, c$  are real numbers  
 $\therefore$  quadratic eqn.

$$\textcircled{ii} x^2-2x = (-2)(3-x)$$

$$\Rightarrow x^2-2x = -6+2x$$

$$\Rightarrow x^2-4x+6=0$$

$\therefore$  given eqn. is quad.

$$\textcircled{iii} (x-2)(x+1) = (x-1)(x+3)$$

$$\Rightarrow x^2-x-2 = x^2+2x-3$$

$$\Rightarrow 3x-1=0$$

$\therefore$  given eqn. is not quadratic

$$\textcircled{iv} (x-3)(2x+1) = x(x+5)$$

$$\Rightarrow 2x^2+x-6x-3 = x^2+5x$$

$$\Rightarrow x^2-10x-3=0$$

$\therefore$  given eqn is quadratic.

$$\textcircled{v} (2x-1)(x-3) = (x+5)(x-1)$$

$$\Rightarrow 2x^2-6x-x+3 = x^2+4x-5$$

$$\Rightarrow x^2-11x+8=0$$

$\therefore$  given eqn. is quad.

$$\textcircled{vi} x^2+3x+1 = (x-2)^2$$

$$\Rightarrow x^2+3x+1 = x^2+4-4x$$

$$\Rightarrow 7x-3=0$$

$\therefore$  given eqn. is not quadratic.

$$\textcircled{vii} (x+2)^3 = 2x(x^2-1)$$

$$\Rightarrow x^3+8+6x^2+12x = 2x^3-2x$$

$$\Rightarrow x^3-6x^2-14x-8=0$$

$\therefore$  given equation is not quadratic

$$\textcircled{viii} x^3-4x^2-x+1 = (x-2)^2$$

$$\Rightarrow x^3-4x^2-x+1 = x^3-8-6x^2+12x$$

$$\Rightarrow 2x^2-13x+9=0$$

$\therefore$  given equation is quadratic.

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