

Ex 25

$$\begin{aligned} \textcircled{1} \quad & x^2 + 3x + 2 = 0 \\ & (x+1)(x+2) = 0 \\ & \downarrow \quad \downarrow \\ & x = -1 \quad x = -2 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & x^2 + 5x + 6 = 0 \\ & (x+3)(x+2) = 0 \\ & \downarrow \quad \downarrow \\ & x = -3 \quad x = -2. \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & x^2 + x - 6 = 0 \\ & (x+3)(x-2) = 0 \\ & \downarrow \quad \downarrow \\ & x = -3 \quad x = 2 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & x^2 + x - 2 = 0 \\ & (x+2)(x-1) = 0 \\ & \downarrow \quad \downarrow \\ & x = -2 \quad x = 1 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & x^2 + 7x + 10 = 0 \\ & (x+5)(x+2) = 0 \\ & \downarrow \quad \downarrow \\ & x = -5 \quad x = -2 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & x^2 + 7x + 12 = 0 \\ & (x+3)(x+4) = 0 \\ & \downarrow \quad \downarrow \\ & x = -3 \quad x = -4 \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad & x^2 - 2x - 15 = 0 \\ & (x-5)(x+3) = 0 \\ & \downarrow \quad \downarrow \\ & x = 5 \quad x = -3 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad & x^2 - 2x - 8 = 0 \\ & (x-4)(x+2) = 0 \\ & \downarrow \quad \downarrow \\ & x = 4 \quad x = -2 \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & x^2 - 6x + 9 = 0 \\ & (x-3)(x-3) = 0 \\ & \downarrow \quad \downarrow \\ & x = 3 \quad x = 3 \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & x^2 - 4x + 4 = 0 \\ & (x-2)(x-2) = 0 \\ & \downarrow \quad \downarrow \\ & x = 2 \quad x = 2. \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad & x^2 + 4x - 12 = 0 \\ & (x+6)(x-2) = 0 \\ & \downarrow \quad \downarrow \\ & x = -6 \quad x = 2 \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad & x^2 + 5x - 24 = 0 \\ & (x+8)(x-3) = 0 \\ & \downarrow \quad \downarrow \\ & x = -8 \quad x = 3. \end{aligned}$$

(13)

$$x^2 + x = 0$$

$$x^2 + \overset{+}{x} + \overset{-}{0} = 0$$

$$(x+0)(x+1) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=0 & x=-1 \end{array}$$

(14)

$$x^2 + 2x = 0$$

$$x^2 + \overset{+}{2x} + \overset{+}{0} = 0$$

$$(x+0)(x+2) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=0 & x=-2 \end{array}$$

(15)

$$x^2 - 4x = 0$$

$$x^2 - 4x + 0 = 0$$

$$(x+0)(x-4) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=0 & x=4 \end{array}$$

(16)

$$x^2 - 3x = 0$$

$$x^2 - 3x + 0 = 0$$

$$(x+0)(x-3) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=0 & x=3 \end{array}$$

(17)

$$x^2 - 4 = 0$$

$$x^2 + \overset{+}{0x} - \overset{-}{4} = 0$$

$$(x+2)(x-2) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=-2 & x=2 \end{array}$$

(18)

$$x^2 - 9 = 0$$

$$x^2 + \overset{+}{0x} - \overset{-}{9} = 0$$

$$(x+3)(x-3) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=-3 & x=3 \end{array}$$

(19)

$$x^2 - 36 = 0$$

$$x^2 + 0x - 36 = 0$$

$$(x+6)(x-6) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=-6 & x=6 \end{array}$$

(20)

$$x^2 - 49 = 0$$

$$x^2 + 0x - 49 = 0$$

$$(x+7)(x-7) = 0$$

$$\begin{array}{cc} \downarrow & \downarrow \\ x=-7 & x=7 \end{array}$$