

Q3) (i) $x^2 + 9x + 14 = 0$
 $(x+7)(x+2) = 0$
 $x^2 + 2x + 7x + 14$
 $9x$ ✓

$$x+7=0 \quad x+2=0$$
$$x=-7 \quad x=-2$$

(ii) $x^2 - 7x + 10 = 0$
 $(x-2)(x-5) = 0$

$$x-2=0 \quad x-5=0$$

$$x=2 \quad x=5$$

(iii) $x^2 + 8x - 20 = 0$
 $(x+10)(x-2) = 0$

$$\begin{array}{r} x^2 + 8x - 20 \\ \underline{+ 10x + 12} \\ 8x - 8 \end{array}$$

$$\begin{array}{r} 20 - 1 \\ 1 \times 20 \\ 2 \times 10 \\ 10 \times 2 \end{array}$$

$$x+10=0 \quad x-2=0$$
$$x=-10 \quad x=2$$