

$$\begin{aligned} 3 \textcircled{i} \quad ax^2 + bx \\ = x(ax + b) \end{aligned}$$

$$\begin{aligned} \textcircled{ii} \quad 7p^2 + 21q^2 \\ = 7(p^2 + 3q^2) \end{aligned}$$

$$\begin{aligned} \textcircled{iii} \quad 2x^3 + 2xy^2 + 2xz^2 \\ = 2x(x^2 + y^2 + z^2) \end{aligned}$$

$$\begin{aligned} \textcircled{iv} \quad am^2 + bm^2 + bn^2 + an^2 \\ = m^2(a + b) + n^2(a + b) \\ = (a + b)(m^2 + n^2) \end{aligned}$$

$$\begin{aligned} \textcircled{v} \quad (lm + l) + m + 1 \\ = l(m + 1) + 1(m + 1) \\ = (m + 1)(l + 1) \end{aligned}$$

$$\begin{aligned} \textcircled{vi} \quad y(y + z) + 9(y + z) \\ = (y + z)(y + 9) \end{aligned}$$

$$\begin{aligned} \textcircled{vii} \quad 5y^2 - 20y - 8z + 2yz \\ = 5y(y - 4) + 2z(y - 4) \\ = (y - 4)(5y + 2z) \end{aligned}$$