



$$\begin{aligned}
 2 \text{ (v)} \quad & (l+m)^2 - (l-m)^2 \\
 & = [l+m - (l-m)] [l+m + (l-m)] \\
 & \qquad \qquad \qquad [\because a^2 - b^2 = (a-b)(a+b)] \\
 & = (\cancel{l+m} - \cancel{l+m}) (\cancel{l+m} + \cancel{l-m}) \\
 & = 2m \times 2l \\
 & = 2 \times 2 \times m \times l \quad \text{or} \quad 2^2 ml
 \end{aligned}$$

$$\begin{aligned}
 2 \text{ (vi)} \quad & 9x^2y^2 - 16 \\
 & = (3xy)^2 - 4^2 \\
 & = (3xy - 4)(3xy + 4) \quad [\because a^2 - b^2 = (a-b)(a+b)]
 \end{aligned}$$

$$\begin{aligned}
 2 \text{ (vii)} \quad & (x^2 - 2xy + y^2) - z^2 \\
 & = (x-y)^2 - z^2 \quad [a^2 - 2ab + b^2 = (a-b)^2] \\
 & = (x-y-z)(x-y+z) \quad [a^2 - b^2 = (a-b)(a+b)]
 \end{aligned}$$

$$\begin{aligned}
 2 \text{ (viii)} \quad & 25a^2 - 4b^2 + 28bc - 49c^2 \\
 & = 25a^2 - (4b^2 - 28bc + 49c^2) \\
 & = (5a)^2 - [(2b)^2 - 2 \times 2b \times 7c + (7c)^2] \\
 & = (5a)^2 - (2b - 7c)^2 \quad [\because a^2 - 2ab + b^2 = (a-b)^2] \\
 & = [5a - (2b - 7c)][5a + (2b - 7c)] \quad [\because a^2 - b^2 = (a-b)(a+b)] \\
 & = (5a - 2b + 7c)(5a + 2b - 7c)
 \end{aligned}$$