

$$\begin{aligned}
 i) \text{ (v)} \quad & (2pq + 3q^2)(3pq - 2q^2) \\
 & = 2pq(3pq - 2q^2) + 3q^2(3pq - 2q^2) \\
 & = 6p^2q^2 - 4pq^3 + 9pq^3 - 6q^4 \\
 & = 6p^2q^2 + 5pq^3 - 6q^4
 \end{aligned}$$

$$\begin{aligned}
 i) \text{ (vi)} \quad & \left(\frac{3}{4}a^2 + 3b^2\right) \times 4\left(a^2 - \frac{2}{3}b^2\right) \\
 & = \frac{3}{4}a^2\left(4a^2 - \frac{8}{3}b^2\right) + 3b^2\left(4a^2 - \frac{8}{3}b^2\right) \\
 & = 3a^4 - 2a^2b^2 + 12a^2b^2 - 8b^4 \\
 & = 3a^4 + 10a^2b^2 - 8b^4
 \end{aligned}$$

$$\begin{aligned}
 2) \text{ (i)} \quad & (5 - 2x)(3 + x) \\
 & = 5(3 + x) - 2x(3 + x) \\
 & = 15 + 5x - 6x - 2x^2 \\
 & = -2x^2 - x + 15
 \end{aligned}$$

$$\begin{array}{r}
 2) \text{ (ii)} \quad x + 7y \\
 \times \quad 7x - y \\
 \hline
 7x^2 + 49xy \\
 \quad - xy - 7y^2 \\
 \hline
 7x^2 + 48xy - 7y^2
 \end{array}$$