

$$6) 5(2x^2 - y^2) - x^2(x^2 - y) - x^2y - x^4$$

$$\begin{aligned} 5 \times 2 &= 10 \\ &= 10x^2 - 5y^2 \\ &= 10x^2 - 5y^2 - x^2(x^2 - y) - x^2y - x^4 \end{aligned}$$

$$\begin{aligned} &-x^2(x^2 - y) \\ &= x^2x^2 - (-x^2)y \\ &= x^2x^2 + x^2y \\ &= x^2x^2 = x^4 \\ &= -x^4 + x^2y \end{aligned}$$

$$= (10x^2 - 5y^2) - x^4 + x^2y - x^2y - x^4$$

$$\begin{aligned} &= -x^4 - x^4 = -2x^4 \\ &= x^2y - x^2y = 0 \\ &= 10x^2 \\ &= -5y^2 \end{aligned}$$

$$= \underline{\underline{-2x^4 + 10x^2 - 5y^2}}$$