

1. Factor:  $(x^3 + 2x^2y)(-4x - 8y)$

$$\textcircled{x^2}(x+2y)\textcircled{-4}(x+2y)$$

$$(x^2-4)(x+2y)$$

$$\boxed{(x+2)(x-2)(x+2y)}$$

2. Factor:  $5x^3y - 5xy$

$$5xy(x^2-1)$$

$$\boxed{5xy(x+1)(x-1)}$$

3. Factor:  $(9x^3 + 9x^2y)(-x - y)$

$$\textcircled{9x^2}(x+y)\textcircled{-1}(x+y)$$

$$(9x^2-1)(x+y)$$

$$\boxed{(3x+1)(3x-1)(x+y)}$$