Find  $\frac{d^2y}{dx^2}$  for each of the following. Simplify your answer as much as possible.

1. 
$$x^2 + y^2 = 9$$

2. 
$$x^2 - y^2 = 16$$

3. 
$$xy = 8$$

4. 
$$x^2 + y^2 - 4x + 2y - 4 = 0$$