

Implicit Differentiation

1. Find dy/dx
(similar to p.149 #1-12)

$$4x^3 - y = 7x + 3$$

2. Find dy/dx
(similar to p.149 #1-12)

$$-7x^2y - \frac{5}{y^2} = 2$$

3. Find dy/dx
(similar to p.149 #1-12)

$$4xy^4 - x^3y = -5$$

4. Find dy/dx
(similar to p.149 #1-12)

$$\frac{x^2y - y^5}{y^2 - 3x} = 2$$

5. Find the slope of the graph of the
function at the given point
(similar to p.149 #13-26)

$$x^2 - y^2 = 9 \quad (5,4)$$

6. Find the slope of the graph of the function at the given point
(similar to p.149 #16)

$$2x^3 - y^2 = -7 \quad (1,3)$$

7. Find the slope of the graph of the function at the given point
(similar to p.149 #22)

$$\sqrt{xy} = 7x - y + 5 \quad (1,9)$$

8. Find equations of the tangent lines to the graph at the given points
(similar to p.150 #35-42)

$$x^2 + y^2 = 25 \quad (2, \sqrt{21})$$