

## Derivative Formula

differentiate with respect to  $x$  :

1.

$$y = 2x^2 - 3$$

2.

$$y = 3x^2 - 4x^5$$

3.

$$y = 3\sqrt{x}$$

4.

$$y = \frac{2}{\sqrt{x}}$$

5.

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

6.

$$y = \frac{3}{4x^3}$$

7.

$$(2x - 3)(x + 1)$$

8.

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

9.

$$y = 3x(x - 2)(2x + 3)$$

10.

$$y = \frac{2x^3 - 5x}{3x^4}$$

## Derivative Formula

answers:

- |    |                               |     |  |
|----|-------------------------------|-----|--|
| 1. | $4x$                          | 2.  | $6x - 20x^4$   |
| 3. | $\frac{3}{2}x^{-\frac{1}{2}}$ | 4.  | $x^{-\frac{3}{2}}$   |
| 5. | $-\frac{4}{3}x^{-3}$          | 6.  | $\frac{9}{4}x^2$   |
| 7. | $4x - 1$                      | 8.  | $\frac{3}{2}x^{\frac{1}{2}} - \frac{1}{2}x^{-\frac{1}{2}} + \frac{3}{2}x^{-\frac{3}{2}}$ |
| 9. | $18x^2 - 6x - 18$             | 10. | $5x^{-4} - \frac{2}{3}x^{-2}$  |