

Chapter 2  
Section 2.1

$$1 \leq x \leq 2 \quad \frac{d}{dx} x^2$$

Answer:  $\frac{d}{dx} x^2 = 2x$

Sketch the graph to verify that the graph of the given function

16.  $y = x^2 - 4x^3$   
 $x \in [0, 1]$

$\frac{d}{dx} (x^2 - 4x^3)$   
 $= 2x - 12x^2$   
 $x \in [0, 1]$

17.  $y = x^2 - 3x$   
 $x \in [0, 1]$

$\frac{d}{dx} (x^2 - 3x)$   
 $= 2x - 3$   
 $x \in [0, 1]$

18.  $y = 2x^2 - 3x + 1$   
 $x \in [0, 1]$

$\frac{d}{dx} (2x^2 - 3x + 1)$   
 $= 4x - 3$   
 $x \in [0, 1]$

19.  $y = x^2 - \frac{1}{2}x^3$   
 $x \in [0, 1]$

20.  $y = x^2 - 2x^3$   
 $x \in [0, 1]$

21.  $y = x^2 - \frac{1}{3}x^3$   
 $x \in [0, 1]$

22.  $y = x^2 - 2x^3$   
 $x \in [0, 1]$

23.  $y = x^2 - \frac{1}{2}x^3$   
 $x \in [0, 1]$

24.  $y = x^2 - \frac{1}{3}x^3$   
 $x \in [0, 1]$

25.  $y = x^2 - 2x^3$   
 $x \in [0, 1]$

26.  $y = x^2 - 2x^3$   
 $x \in [0, 1]$

27.  $y = x^2 - \frac{1}{3}x^3$   
 $x \in [0, 1]$