

Lesson 2.1 Answers

p1/2

6. $m = \frac{3}{2}$

8. $m = -4$

10. $m = -4$

12. $= 0$

15. $= \frac{2}{3}$

18. $= -2a$

21. $= \frac{1}{(a-1)^2}$

24. $= \frac{-2}{a\sqrt{a}}$

27. $m = 12$
 $y = 12x - 16$

30. $m = \frac{1}{4}$
 $y = \frac{1}{4}x + \frac{3}{4}$

72. $= 1$

76. $-\frac{1}{9}$

78. DNE

81. Differentiable except at $x = -1$; Discontinuity
 $(-\infty, -1) \cup (-1, \infty)$

83. Differentiable except at $x = 3$; sharp turn
 $(-\infty, 3) \cup (3, \infty)$

84. Differentiable except at $x = \pm 2$; discontinuities
 $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$

91. not differentiable at $x = 1$

93. differentiable at $x = 1$

$$\left(\lim_{h \rightarrow 0} \frac{f(a+h) - f(a)}{h} \right)$$

$$\left(\lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a} \right)$$