

Math 124 K,R - Autumn 2007
Mid-Term Exam Number One
October 23, 2007
Answers

1. (a) -6

(b) $\frac{4}{3}$

(c) $\frac{3}{2}$

(d) ∞

2. (a) $\sqrt{3}$

(b) 2

3. $y = 1$ and $y = \frac{4}{3}x - \frac{5}{3}$

4. The function is discontinuous because

$$\lim_{x \rightarrow 3} f(x)$$

does not exist. The way to show this is to show that the limit from the left is 0 and the limit from the right is 6.

5. $y = -\frac{1}{4}(x - 2) + \frac{1}{2}$

6. (a) d, (b) g, (c) b

7. (a) The snail starts at $(1, 0)$.

(b) $x'(2) = 7$.