

1.2 Rates of Change

AP Precalculus

Name: _____

CA #2

Find the average rate of change of the function on the given interval.

1. $f(x) = \ln(7x)$ on the interval $3 \leq x \leq 10$.

2. $s(t) = \frac{1}{t-3}$ on the interval $[0, 1]$

Use the information in the table to find the average rate of change on the given interval.

3.

h horses	1	5	12	20
$f(h)$ flies	20	74	205	516

a. $1 \leq t \leq 20$

b. $5 \leq t \leq 12$

c. $5 \leq t \leq 20$

Estimate the rate of change of each function at the given point.

4. $f(x) = 4x - x^2 + 2$ at $x = -2$

5. $f(x) = \frac{1}{2x}$ at $x = -2$

6. $f(x) = \sqrt{x}$ at $x = 5$

State whether the situation represents a positive or negative rate of change.

7. The number of logs on the campfire increases and the temperature of the fire also increases.

8. As the miles you drive increases, the amount of gas in the tank decreases.

9. The number of pass attempts by a quarterback decrease and his number of interceptions also decreases.

Answers to 1.2 CA #2

1. 0.1719	2. $-\frac{1}{6} \approx -0.1666$	3a. 26.105 flies per horse 3b. 18.714 flies per horse 3c. 29.4666 flies per horse	4. ≈ 8
5. ≈ -0.125	6. ≈ 0.2236	7. positive	8. negative
			9. positive