Average Rate of Change - Day 2

Example #1

Find the average rate of change over the following intervals, given the function $f(x) = 5x^2 - 3x + 2$

(a) $2 \le x \le 6$

(b) $x \in [1,2.5]$

Example #2

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Kyle tracks the number of people at his party every hour:

		poopio at im	o party over	, 110a,			
t (time)	0	1	2	3	4	5	
p(# people)	0	22	28	34	20	2	

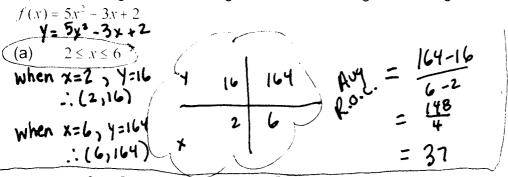
(a) find the average rate of change for each of the 1 hour time intervals

- (b) find the average rate of change for the interval $t \in [0,3]$
- (c) find the average rate of change for the interval $t \in [3,5]$

Average Rate of Change - Day 2

Example #1

Find the average rate of change over the following intervals, given the function



(b)
$$x \in [1.2.5]$$

When $x = 1$, $y = 4$
 $\therefore (1,4)$

When $x = 2.5$, $y = 25.15$
 $\therefore (2.5, 25.75)$
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es.3 3≤x∠8 x∈ (3,8)

INTERVAL

NOTATION

XE[2,6]

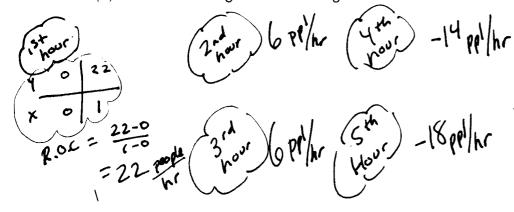
6-24-10

 $y \in [2,\infty)$ $y \in X < 5$ $X \in (-\infty,5)$

Example #2

Kyle tracks the number of people at his party every hour:									
X	t (time)	0	1	2	3	4	5		
4	p(# people)	0	22	28	34	20	2		

(a) find the average rate of change for each of the 1 hour time intervals



- (b) find the average rate of change for the interval $i \in [0.3]$ $\frac{3^4}{4}$ $\frac{3^4}{4}$ $\frac{3^4}{4}$ $\frac{3^4}{4^2}$ $\frac{3^4}{4^2}$
- (c) find the average rate of change for the interval $i \in [3.5]$