Average Rate of Change

For problems 1 – 4, find the slope of the line that passes through the two points.

1.) $(1, 7), (2, -4)$

2.) $(-3, 5), (6, 2)$

3.) $\left(\frac{1}{2}, -\frac{2}{3}\right), \left(-\frac{3}{4}, \frac{5}{6}\right)$

4.) $(-0.25, -1.82), (3.20, -2.97)$

For problems 5 – 8, use the table of values to find the average rate of change over the given interval.

x	1	2	3	3.5	3.7	6
y	40	25	18	15	18	38

5.) $[1, 3]$

6.) $[2, 6]$

7.) $[2, 3.7]$

8.) $[3.5, 6]$

For problems 9 – 12, find the average rate of change of each function on the given interval.

9.) $f(x) = x^2 - 4x - 12$ on $[0, 6]$

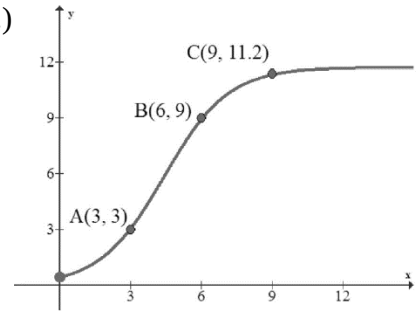
10.) $f(x) = x^2 - 4x - 12$ on $[-1, 7]$

11.) $f(x) = 3x^2 - x - 2$ on $[-1, 4]$

12.) $f(x) = 0.05x^2 - 1.3x + 22.8$ on $[13, 23]$

For problems 13 – 14 computer the average rate of change from A to B, from B to C, and from A to C. Which one gives the largest average rate of change?

13.)



14.)