Skill 6 (Average Rate of Change) Worksheet

(S6a) Find the slope of the line passing through each pair of points or state that the slope is undefined. Then indicate whether the line through the points rises, falls, is horizontal, or is vertical.

1) $(3,-5)$ and $(-2,-6)$

2) $(-1,0)$ and $(4,-3)$

3) $(-7,-4)$ and $(0,5)$

4) $(-1,-3)$ and $(4,-3)$

(S6b) Find the average rate of change of each equation.

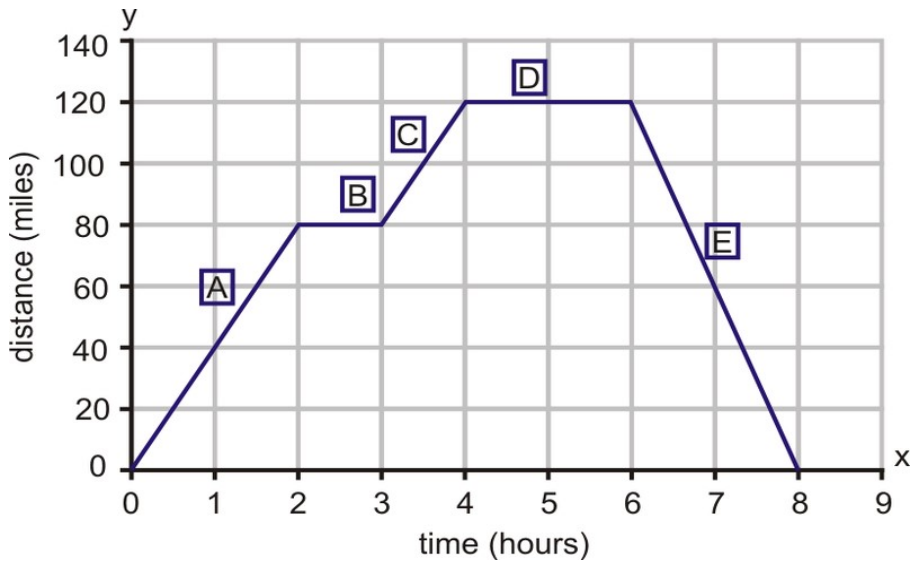
5) $y = 2x^2 - 15$ from $x = 4$ to $x = 7$

6) $y = \frac{1}{3}x^2$ from $x = 3$ to $x = 6$

(S6b) Find the average rate of change of each equation.

7) $y = -|x-2|$ from $x = 1$ to $x = 6$

8) $y = 3 + \frac{1}{2}\sqrt{x-4}$ from $x = 8$ to $x = 20$



(S6b) Find the average rate of change using the graph above.

9) *Line C*

10) *Line D*

11) *Line A*

12) *Line E*

Skill 6 (Average Rate of Change) Answer Key

1) $\frac{1}{5}$ $(Rises)$

2) $-\frac{3}{5}$ $(Falls)$

3) $\frac{9}{7}$ $(Rises)$

4) 0 $(Horizontal)$

5) 22

6) 3

7) $-\frac{3}{5}$

8) $\frac{1}{12}$

9) $40\ mph$

10) $0\ mph$

11) $40\ mph$

12) $-60\ mph$