U1B L2 Slope and Rage of Change Name: _____HR:_____

Practice

UNIT 1B Lesson 2 **Directions: Find the slope of the line passing through the given points and DRAW the direction the graph goes. If its horizontal or vertical state so.**

1. $(-5,1)$ and $(3,7)$	2. $(3,-4)$ and $(8,-4)$	3. $(0,4)$ and $(0,-2)$
4. $(-3,-7)$ and $(6,-2)$	5. $(-1,-1)$ and $(-4,3)$	6. $(4.3,-2.9)$ and $(-14.3,8)$ (answer as a fraction)

Directions: Find the average rate of change of the function between the given x values.

7. $f(x)=3x+2$ on the interval x = 1 to x = 3.	8. $g(x)=-5x+2$ on the interval x = -1 to x = 4.	9. $m(x)=x^2-4x+6$ on the interval x = 1 to x = 4.

7. Find the average rate of change from x = -1 to x = 5

x	-4	-1	2	5
$f(x)$	10	1	-2	-5

8. $g(x)=2x-x^2$ on the interval x = 0 to x = 4.

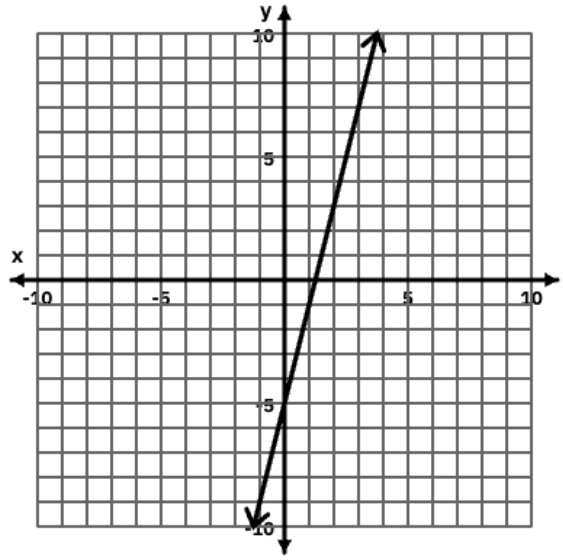
x	-2	0	2	4
$f(x)$	-5	-1	3	9

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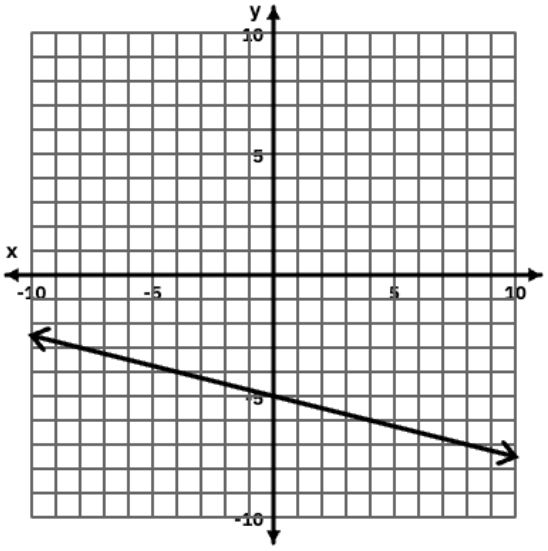
10. A candles height can be found by the function $h(t) = -0.3t + 12$. Where h is the height in cm and t is the time it is burning for in hours. Find the average rate of change of the candles height from t = 2 hours to t = 6 hours after lighting	11. The volume of water in a reservoir (in cubic meters) after t days is $V(t) = 5000 - 25t + 0.5t^2$. Find the average rate of change of the reservoir's volume from t = 2 to t = 10 days, and determine whether the water level is rising or falling on average over that period.	12. A city's population is modeled by $P(t) = 120000 + 600t - 5t^2$, where t represents the number of years since 2020. Calculate the average rate of change of the population between t = 2 and t = 6 years, and interpret whether the population is increasing or decreasing on average over that period.

Directions: Determine the average rate of change (slope) of the graphs.

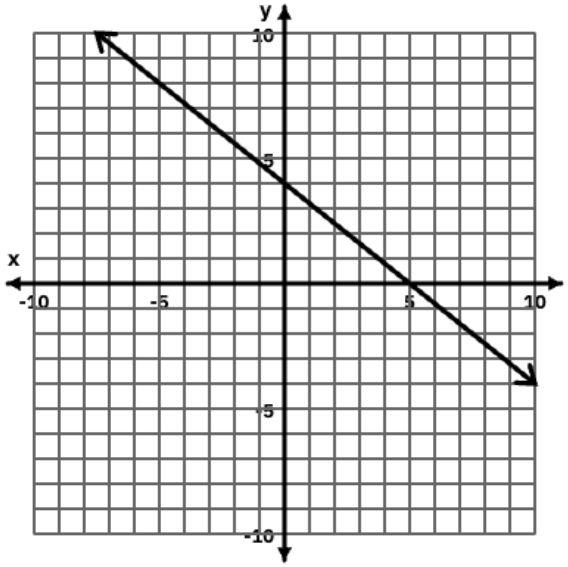
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14



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16. Find the rate of change between x = 2 and x = 3

