Algebra II Combo worksheet 1.1 Name Key

Simplify Each

1. $35 \div 5 \cdot 2 + 12 \div 6$ $7 \cdot 2 + 2$ $14 + 2$ 16	2. $3^2 + 2\left[40 - (1-6)^2\right]$ $9 + 2[4 - 25]$ $9 + 2(-21)$ $9 - 42 = -33$	3. $\dfrac{5 - \left[12 - (5-8)^2\right]}{8 \div 2} = \dfrac{5-(12-9)}{4}$ $\dfrac{5-3}{4} = \dfrac{2}{4}$ $= 1/2$

Find the slope of the line passing through the given points or line. $m = \dfrac{y_2 - y_1}{x_2 - x_1} = \dfrac{\Delta y}{\Delta x}$

4. $(6,5)$ and $(4,-3)$ $\dfrac{\Delta y}{\Delta x}$ $\dfrac{-8}{-2} = 4$	5. $(-1,5)$ and $(-1,15)$ $\dfrac{\Delta y}{\Delta x}$ $\dfrac{10}{0}$ Undefined	6. $(-3,5)$ and $(-1,7)$ $\dfrac{\Delta y}{\Delta x}$ $\dfrac{2}{2} = 1$	7. $(1,8)$ and $(1,15)$ $\dfrac{\Delta y}{\Delta x} = \dfrac{7}{0}$ Undefined

Graph and label each line with the given information.

8. *line ℓ*

x-intercept	y-intercept
-6	6

9. *line m*

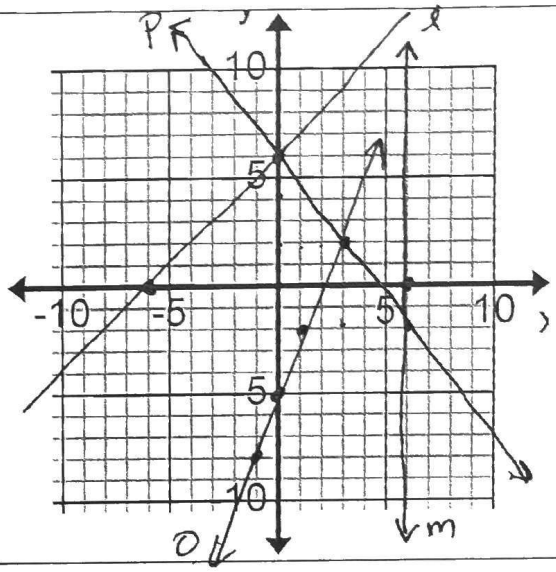
x-intercept	No y-intercept
5	

10. *line p*

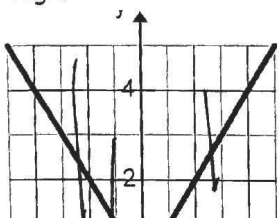
y-intercept	Slope of $-\dfrac{4}{3}$
6	

11. *line o*

y-intercept	Slope of 3
-5	



12. Use the vertical line test to determine whether each relation is a function. If not a function, identify **two points** a vertical line would pass through.



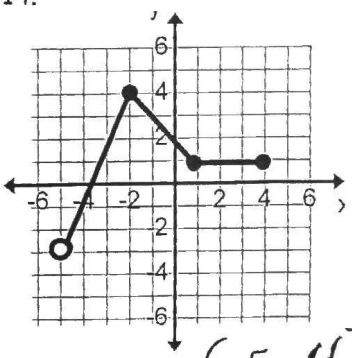
Give the Domain and Range for each relation.

13. $\{(9,3),(7,3),(5,3),(3,3),(1,3)\}$

Set: D: $\{1\ 3\ 5\ 7\ 9\}$

R: $\{3\}$

14.



Interval: D: $(-5, 6]$

15.

x	7	6	5	4	3
y	-1	2	-1	2	3

Set:

D: $\{3,4,5,6,7\}$