

CP Algebra 2
 Quiz #2
 February 14, 2012

Name: _____

In Problems 1 – 6, determine if the item is LINEAR or NOT.
 Circle your answer.

[2 Points Each]

1.) $y = 2x^3 + 5$

LINEAR NOT

2.) $y = \sqrt{x-2} - 3$

LINEAR NOT

3.) $3x - 4y = 10$

LINEAR NOT

4.) $y = |2x - 1|$

LINEAR NOT

5.) $y = \frac{5}{x} - 4$

LINEAR NOT

6.) $y = 3^x + 4$

LINEAR NOT

In Problems 7-8, determine if the table represents a linear pattern.
 SHOW CONVINCING WORK AND EXPLANATION!

[3 Points Each]

7.)

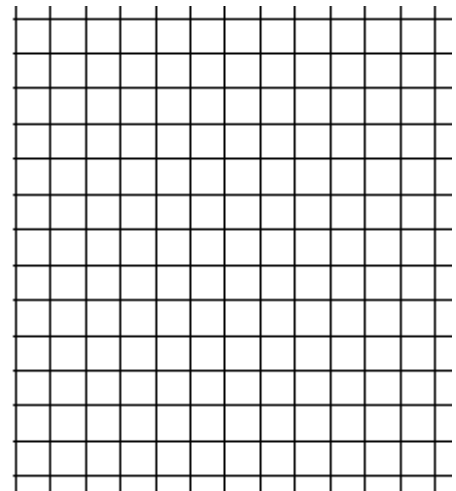
x	1	2	4	5	9
y	8	14	26	32	56

8.)

x	2	3	5	6	7
y	10	12	14	16	18

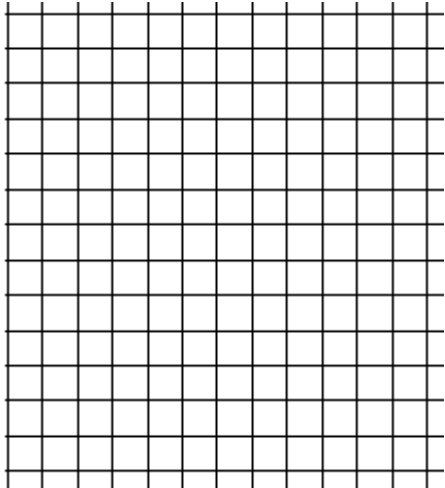
9.) Graph using a table of values.
 [5 Points]

$y = \frac{1}{3}x - 2$



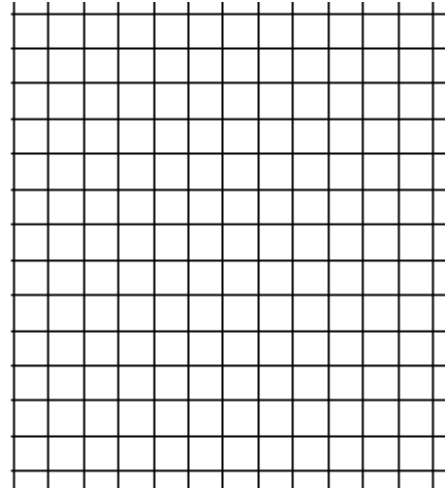
- 10.) Graph using intercepts. [5 Points]
(x- and y-intercepts)

$$6x - 3y = 24$$



- 11.) Graph using slope-intercept form. [5 Points]

$$2x + 5y = 15$$

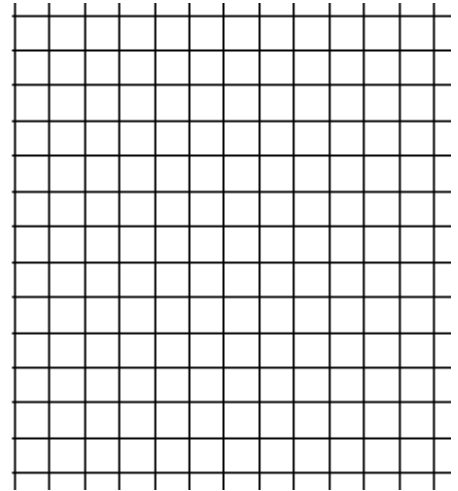


- 12.) Write the equation of the line containing the point $\left(-\frac{9}{4}, 12\right)$ parallel to $5x - 2y = 6$
[6 Points]

In Problems 13 – 14, solve the system of equations using the indicated method. [6 Points Each]

13.) By Graphing!

$$\begin{cases} 2x + 3y = 9 \\ 3x - y = 8 \end{cases}$$



14.) By Substitution OR Elimination!

$$\begin{cases} -3x + 2y = 8 \\ 5x - 7y = 10 \end{cases}$$

15.) Given $\triangle ABC$ with $A(2, 3)$, $B(5, -1)$, and $C(7, 10)$, find the following:

[24 Points]

BE ORGANIZED!! SHOW YOUR WORK IF YOU WANT ANY CREDIT!

Draw Triangle Here:

- A.) The equations of each of the Altitudes of the triangle AND the point where they intersect (show it works in all three).
(An altitude goes from a vertex perpendicular to the opposite side.)

Place ANSWER here:

Line #1: _____

Line #2: _____

Line #3: _____

Intersection Point

- B.) The equations of each of the Perpendicular Bisectors of the triangle AND the point where they intersect. (show it works in all three).
(A perpendicular bisector goes perpendicular to a side and through the midpoint of that side.)

Place ANSWER here:

Line #1: _____

Line #2: _____

Line #3: _____

Intersection Point

- C.) The equations of each of the Medians of the triangle AND the point where they intersect. (show it works in all three).
(A median goes from a vertex to the midpoint of the opposite side.)

Place ANSWER here:

Line #1: _____

Line #2: _____

Line #3: _____

Intersection Point