

Cornell Notes

Name Bonn

Date 8/31/2011

Topic Alg II Parallel & Perpendicular

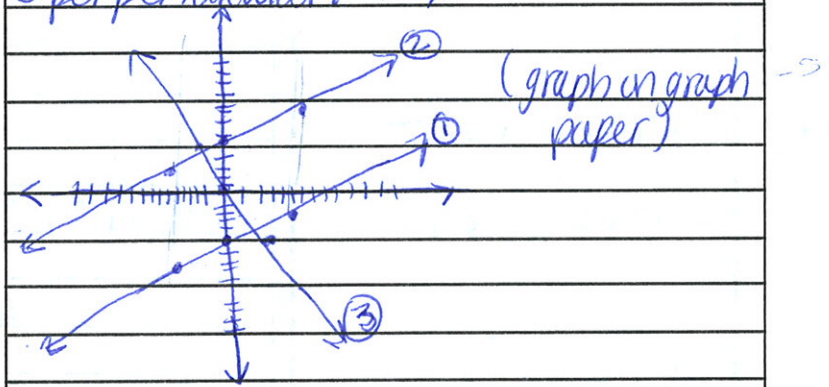
Class/Subject Alg II

7:50

Warm-up

Given a line ① $y = \frac{2}{5}x - 5$ find the lines parallel & perpendicular to this line through the point $(-2, 5)$
Graph all 3 lines to check your answers.

- ② parallel: $\frac{2}{5}x + \frac{29}{5}$
- ③ perpendicular: $-\frac{5}{2}x$



parallel

perpendicular

$$y - 5 = \frac{2}{5}(x + 2) \quad \text{point slope form}$$

$$y = \frac{2}{5}x + \frac{4}{5} + 5$$

$$y = \frac{2}{5}x + \frac{29}{5}$$

$$y - 5 = -\frac{5}{2}(x + 2) \quad \text{point slope}$$

$$y - 5 = -\frac{5}{2}x - 5$$

$$y = -\frac{5}{2}x + 0$$

8:12 ~~finish~~ finish word problems in groups (from yesterday)
work with partner from yesterday

Summary: Went through a warm up that was used to find parallel & perpendicular lines to a given equation and point. Then worked on worksheets

Cornell Notes

Name Rachel Moniston

Date 8/31/2011

Topic

Class/
Subject Bonn / Alg II

#4

(independent, dependent)
(time, %)
 t $G(t)$ t $G(t)$
(0, 22.3) (16, 27)

① slope
② point-slope

$$G(t) = 0.294t + 22.3$$

8:45 finish worksheet
GROUP WORK

Worksheet: Converting Temperatures
in group
today & tomorrow

HW

Worksheet: Slope - Day 3
All of sheet

Converting Temperatures

Solving Linear Equations

“When am I ever going to use this?”
Using the concepts in this worksheet, you will be able to convert between degrees Fahrenheit and degrees Celsius.

Although Fahrenheit is the standard system for measuring temperature in the United States, most of the rest of the world uses the Celsius system for measuring temperature. In the Celsius system, water boils at 100 degrees and water freezes at 0 degrees. In the Fahrenheit system, water boils at 212 degrees and water freezes at 32 degrees. The formula $F = 1.8C + 32$ converts degrees Celsius into degrees Fahrenheit. In the formula, C is the number of degrees Celsius and F is the number of degrees Fahrenheit.

1. Thirty degrees Celsius is the same as how many degrees Fahrenheit?
2. One hundred degrees Fahrenheit is the same as how many degrees Celsius?
3. Starting with the formula $F = 1.8C + 32$, create a formula that converts degrees Fahrenheit to degrees Celsius.

4. Use the formula from (3) to convert 212 degrees Fahrenheit into degrees Celsius.

5. One mental technique that may be used to quickly estimate the number of degrees Fahrenheit that are equal to a given number of degrees Celsius is to double the temperature and add 30. For example, 40 degrees Celsius is about the same as $2(40) + 30 = 110$ degrees Fahrenheit. Similarly, 7 degrees Celsius is about the same as $2(7) + 30 = 44$ degrees Fahrenheit. Determine the accuracy of this mental technique by completing the following table.

C	$F = 1.8C + 32$	
-10	14	
0	32	
10	50	
20	68	
30	86	
40	104	
50	122	
60	140	

6. Find a formula that will allow you to do a quick mental approximation of degrees Celsius when given degrees Fahrenheit. Then use the formula to complete the table.

F	$C = \frac{F - 32}{1.8}$	<i>New Formula</i>
5	-15	
14	-10	
32	0	
41	5	
50	10	
68	20	

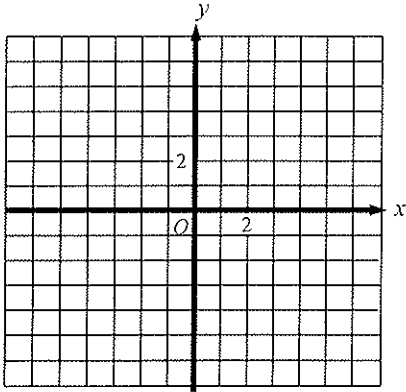
HW

Slope - Day 3
Assignment
No Work, No Credit

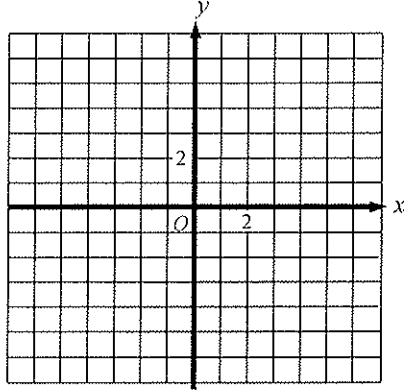
Name _____
Period _____

Graph each equation.

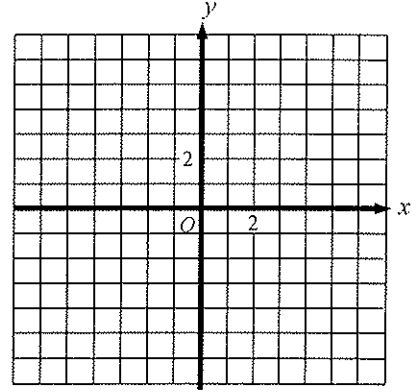
1. $2x + y = 4$



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



3. $3x - y = -6$



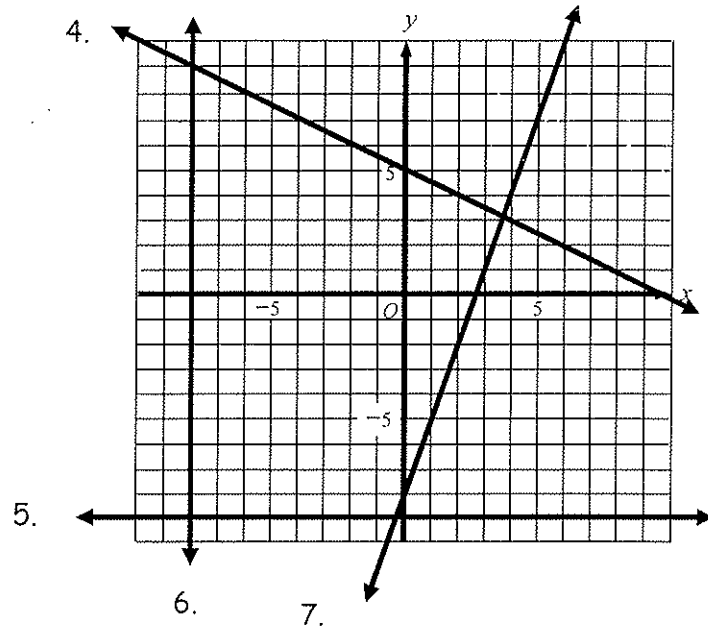
Write an equation for each of the four lines shown on the graph below.

4. _____

5. _____

6. _____

7. _____



8. Write an equation for the line with a slope of -3 and a y -intercept of 5 .

9. Write an equation for the line with a slope of $\frac{3}{2}$ that passes through $(0, 2)$.

10. Write an equation for the line that passes through $(1, 5)$ and $(4, 6)$.

11. Write an equation that represents the data in the table.

x	1	2	3	4	5
y	3	2	1	0	-1

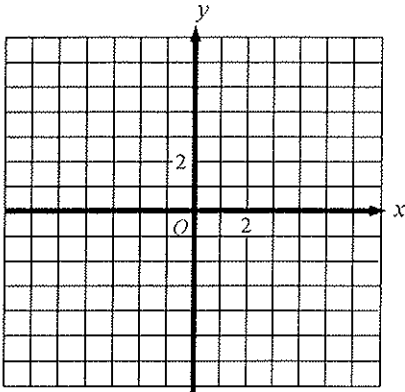
Equation _____

x	-2	0	2	4	6
y	9	5	1	-3	-7

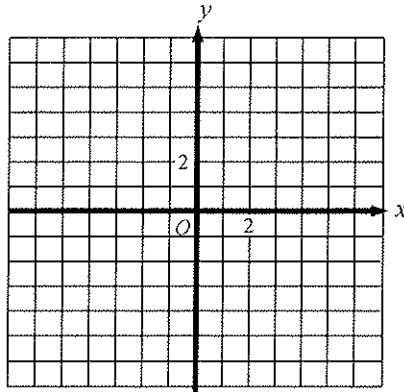
Equation _____

Graph each equation.

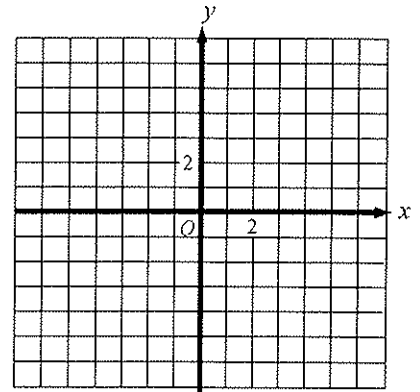
12. $3x + y = -4$



13. $x - 4y = 0$

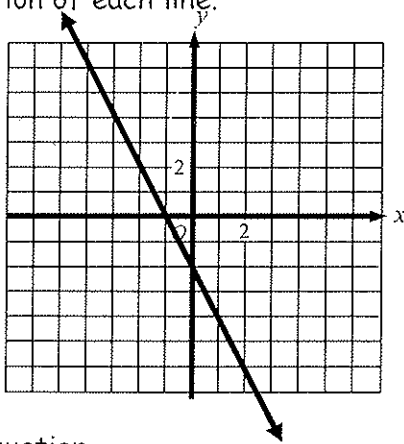


14. $y = 3 + 2x$



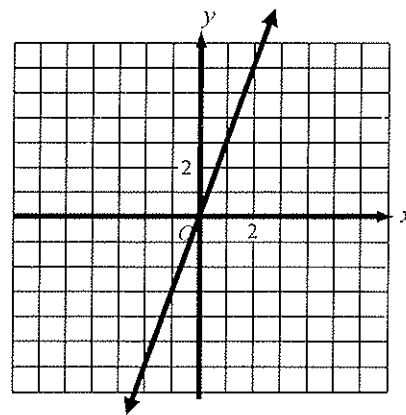
Write the equation of each line.

15.



Equation _____

16.



Equation _____

On the Talk for Less long-distance phone plan, the relationship between the number of minutes a call lasts and the cost of the call is linear. A 5-minute call costs \$1.25, and a 15-minute call costs \$2.25.

17. Write an equation for the relationship between the cost and the length of a call.
18. Find the slope and the y-intercept of the equation, and explain what this information means in the context of the problem.
19. How much will a 25-minute call cost?
20. How long can a customer talk for \$5.00?