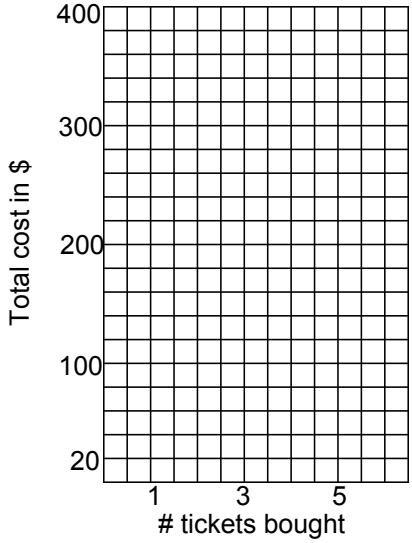
Alg 1 Week 13 Block Warm Up

Skill 5: Michele is buying concert tickets online. Tickets cost $52.00 each, she also has to pay a one-time service fee of $8.00 to use the online site. An equation that represents this transaction is C(t)= 52t+8 where C(t) represents the total cost for the tickets and t represents the number of tickets purchased.

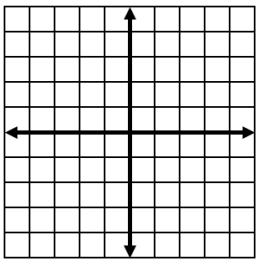
Fill in the chart, graph the function, and use your graph to find out how many tickets Michele can purchase for $320.

t	C(t)=52t +8	C(t)



Skill 6: Convert the equation into slope-intercept form and then graph.

$$-4x - 2y = 6$$



Skill 7: Write the equation of the line that passes through the given points in slope-intercept form. (6,1) and (8,-4)

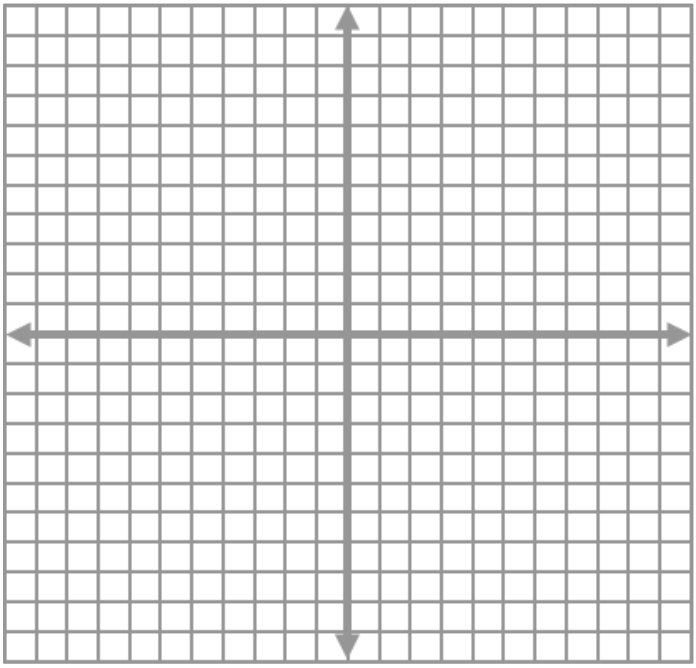
Skill 8: Write the equation of the line that is parallel to the line $y = -\frac{3}{8}x - 4$, and passes through the point (-16,-3).

CW: graph the following and find the intersection.

$y = \frac{1}{3}x + 1$

$y = -3x + 11$

Check :

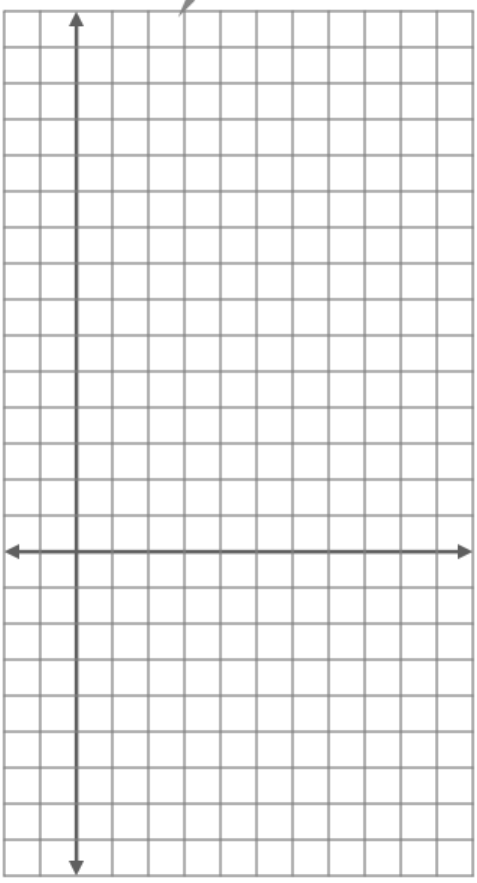


CW

Playing Catch Up, Wk 13 Block

A group of students went backpacking towards Yosemite from Carson Pass. They planned to hike twenty-four miles to their first destination, at a rate of three miles per hour. Unfortunately, they left the camping stove and the fuel behind. Two hours after they left, Mr. Fuller set out to catch them. He traveled at a pace of 6 miles per hour.

1. Graph the two trips (on the same graph). Graph the hours hiked on the *x-axis*, using a scale of 1 unit equals 1 hour. Graph distance hiked on the *y-axis*, using a scale of 1 unit equals 2 miles.



2. Did Mr. Fuller catch up with the students?

3. If he caught up, answer the following questions.
   a. How many hours had the students been hiking when Mr. Fuller caught them?

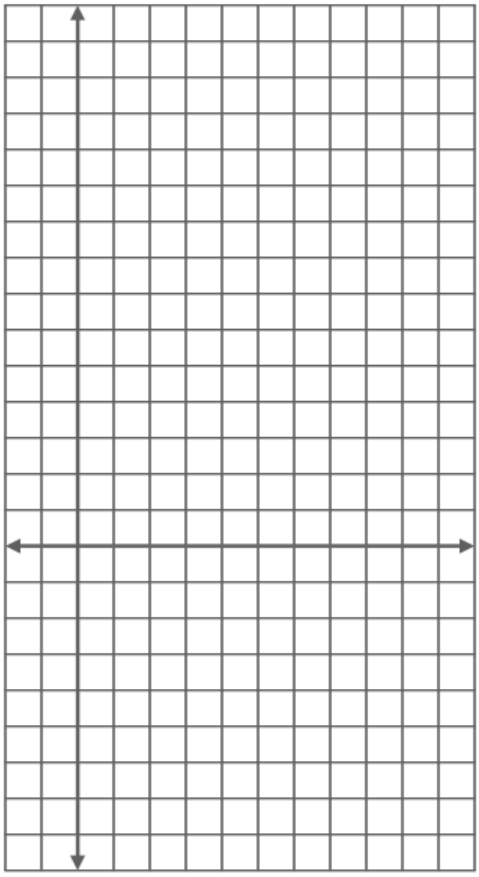
   b. How many miles had the students hiked when he caught up?

4. Write the equation which represents the students' hike.

5. Write the equation which represents Mr. Fuller's hike.

Meanwhile, another group of students decided to sail from San Francisco Bay to Half Moon Bay. They sailed the 25 miles between the two harbors at 5 miles per hour. After they left port, Ms. Wilson discovered that one of the students had received a "Priority One" letter. She radioed the sailboat to discover that they had sailed 15 miles. With the students 15 miles ahead, Ms. Wilson set out in a power boat to catch them. She cruised at 20 miles per hour in effort to bring the letter to the students as quickly as possible.

6. Graph the two trips on the same grid. Graph the hours of travel on the *x-axis*, using a scale of 1 unit equals 1 hour. Graph the distance traveled on the *y-axis*, using a scale of 1 unit equals 2 miles.



7. Did Ms. Wilson catch up with the students before they reached the Half Moon Bay harbor?

8. If she caught up, answer the following questions.

   a. How many hours had the students been sailing when Ms. Wilson caught them?

   b. How many miles had the students sailed when she caught up?

9. Write the equation which represents the students' sailing.

10. Write the equation which represents Ms. Wilson's power boating.

Time for week 13 assessments

HW: p 367: 11-17 odd, 21 (Use graph paper, and remember to check)

Solve each system by graphing. Check your solution. Use graph paper

See Problem 1.

[redacted]

8

11. $y = \frac{1}{2}x + 7$

$y = \frac{3}{2}x + 3$

[redacted]

[redacted]

13. $y = x - 4$

$y = -x$

[redacted]

15. $4x - y = -1$

$-x + y = x - 5$

[redacted]

17. $2x - y = -5$

$-2x - y = -1$

[redacted]

Solve by graphing, write answer in a complete sentence.

21. Fitness At a local fitness center, members pay a $20 membership fee and $3 for each aerobics class. Nonmembers pay $5 for each aerobics class. For what number of aerobics classes will the cost for members and nonmembers be the same?