Math 8CP Homework
January 23-25

Name
Per $\qquad$ Date $\qquad$

## Wednesday:

1. Translate the figure 4 units left and 3 units down.

2. Rotate the figure 90 degrees Clockwise.

3. Write the rule of the transformation of the shaded to non-shaded figure


Rule: $\qquad$
4. The graph shows the rate of rainfall, in mm per hour, one afternoon.

A. What time did it start to rain? $\qquad$
B. What was the rate of rainfall at $5: 00$ ?
C. What happened to the rate of rainfall between 6:00 and 6:15?
D. How long did it rain? $\qquad$
E. What time period did it rain the most?
F. Make up a question about the graph:

## Thursday:

1. Reflect the figure across the $x$-axis.

2. Write the rule of the transformation Of the shaded to non-shaded image.

3. 
4. Solve:
a. $-\frac{x}{2}+9=14$
b. $3 x-7=7 x+19$
5. Fill in the table, find the rule, graph and answer the questions:

| Time (minutes) | 0 | 2 | 4 | 6 |
| :--- | :--- | :--- | :--- | :--- |
| Distance away from <br> home (miles) | 5 | 8 | 11 | 14 |
| Rule: |  |  |  |  |

a. Interpret the slope in the context of this problem:

b. Interpret the y-intercept (how can you start at 5 miles?):
c. How far will you be away from home after 10 minutes?
d. How many minutes will have passed when you are 122 miles away?

Friday:

1. Rotate the figure $180^{\circ}$ then reflect over the $x$-axis

2. The triangles are similar. Find the missing side length. Look for a relationship first!.

$2^{\text {nd }}$ Image Coordinates:
A": ( , ) B": ( , ) C": ( , )
3. Find the value of $y$ for the given value of $x$ :
a. $y=-3+2 x ; \quad x=-12$
b. $y=\frac{1}{2} x-7 ; \mathrm{x}=-18$
c. $y=x^{2}+6 ; \quad x=7$
4. Write the rule for the following linear functions:
a.

b. (Count the sides.)


c.

| $x$ | -3 | -1 | 1 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| $y$ | 5 | 2 | -1 | -4 |

