

Math 6
Unit 7 Test Review

Name Krey

Knowledge and Understanding

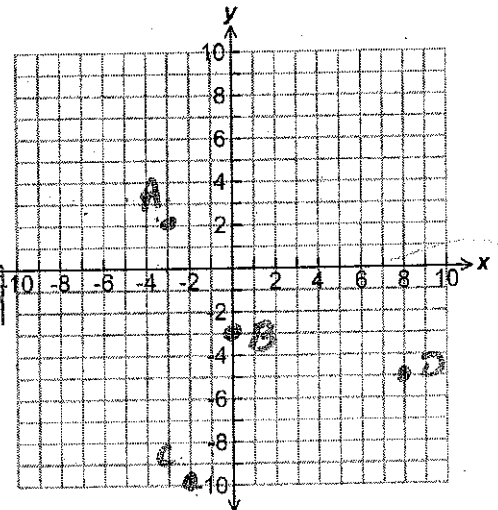
- What does the absolute value of a number tell you about the number? How far (the distance) it is from zero.
- Describe how to use a number line to order integers. As the number line goes to the right the number increases. As the number line goes to the left the number decreases.

Proficiency of Skills

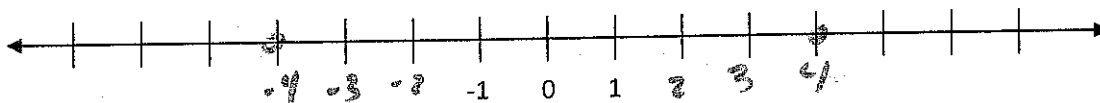
- Evaluate $|-15| =$ 15
- Evaluate $-|2| =$ -2
- Order from least to greatest: $-10, 0, |-12|, -12, |-9|$

-12, -10, 0, 9, 12

- Plot and label the following points on the coordinate plane →
A (-3, 2); B (0, -3); C (-2, -10); D (8, -5)

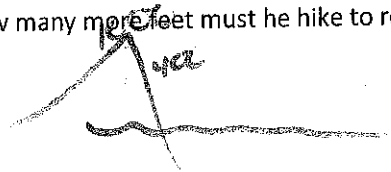


- Finish labeling the number line below. Plot a point on 4 and its opposite.



Application

- Kellen has reached the peak of Mathclassrocks Mountain at 1,000 feet above sea level. He hikes down 400 feet to check out an old cannon. How many more feet must he hike to reach sea level? (Hint: Drawing a picture may help to visualize the problem!!)



600

- The table below shows today's temperature for 5 cities in Alaska.

City	McKinley Park	Bethel	Fairbanks	King Salmon
Temperature ($^{\circ}$ Celsius)	-22	-11	-20	-13

- Write an inequality statement comparing the temperature of King Salmon and Bethel:

$-11 > -13$

- Order the cities from warmest to coldest:

$-13 < -11$

① Bethel, ② King Salmon, Fairbanks, McKinley Park

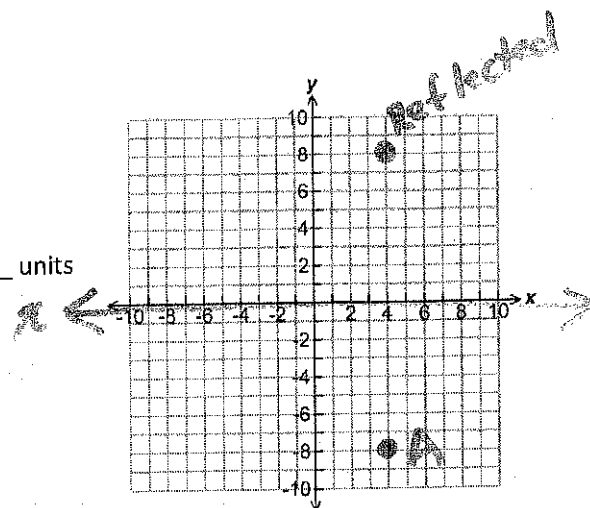
10. Graph point A (4, -8) on the coordinate plane →

a. Reflect the point across the x-axis.

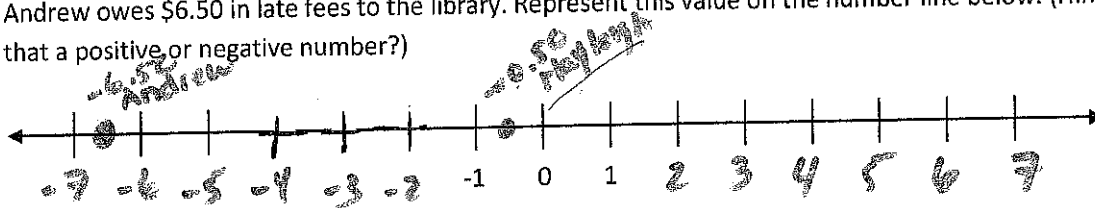
b. What is the distance between point A and the reflected point? 16 units

Justify your answer.

distance 0 to -8 is 8 $| -8 | = 8$
 distance 0 to 8 is 8 $| 8 | = 8$
 $| -8 | + | 8 | = 8 + 8 = 16$



11. Andrew owes \$6.50 in late fees to the library. Represent this value on the number line below. (Hint: If he OWES, is that a positive or negative number?)



a. Hayleigh owes \$0.50 in late fees to the library. Plot a point for this value on the number line.

b. How much more does Andrew owe than Hayleigh? \$6 more

Use the map below for questions 12 – 14.

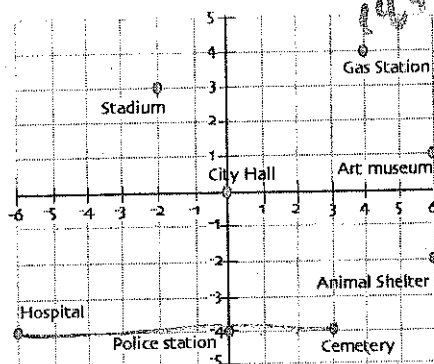
12. Name the ordered pair that represents the location of the gas station.

(4, 4)

13. How many blocks apart are the hospital and the cemetery?

9 blocks

14. Name the building that is located in quadrant 3. Hospital



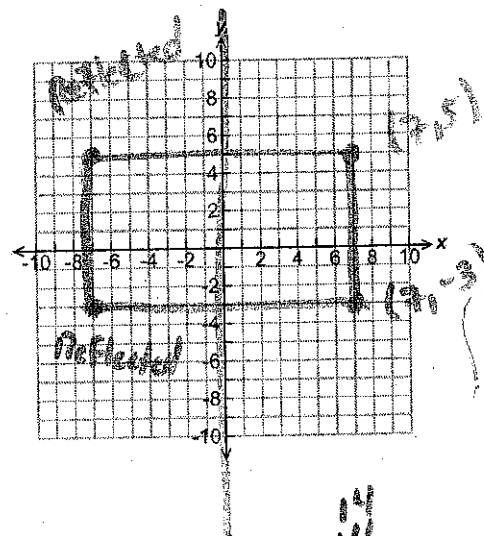
15. Graph (7, -3) and (7, 5) on the coordinate plane to the right.

a. Reflect both points across the y-axis to form the vertices of a rectangle.

Name the two reflected ordered pairs: (-7, -3) and (-7, 5)

b. What is the perimeter of the rectangle? 44 units

c. What is the area of the rectangle? 112 units²



was like

16. If you reflected the ordered pair $(-2, 5)$ across the x-axis, what would be the coordinates of the reflection?

A. $(-2, -5)$

B. $(2, 5)$

C. $(2, -5)$

D. $(-2, 5)$



17. Which statement below is NOT true?

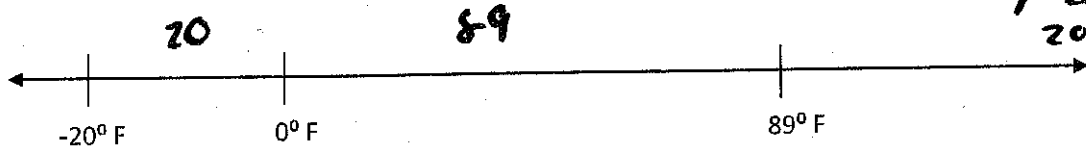
A. $-3 < -1$ ✓

B. $-2 \geq -5$ ✓

C. $-4 \leq -14$ ✗

D. $-3 < 4$ ✓

18. It is 89 degrees above zero in Miami. It is 20 degrees below zero in Anchorage. Use the number line below to determine how many degrees warmer it is in Miami than in Anchorage.



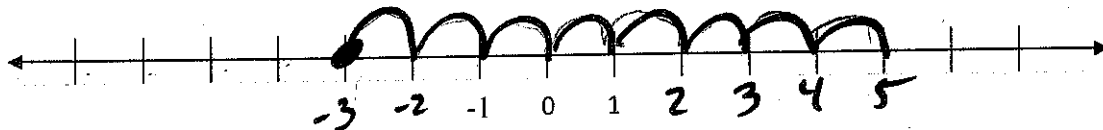
A. 69°F

B. 79°F

C. 109°F

D. 129°F

19. A Bolivian monkey is jumping around on a number line. He starts at -3 and jumps 8 units to the right. Where is he now on the number line?



A. -5

B. -11

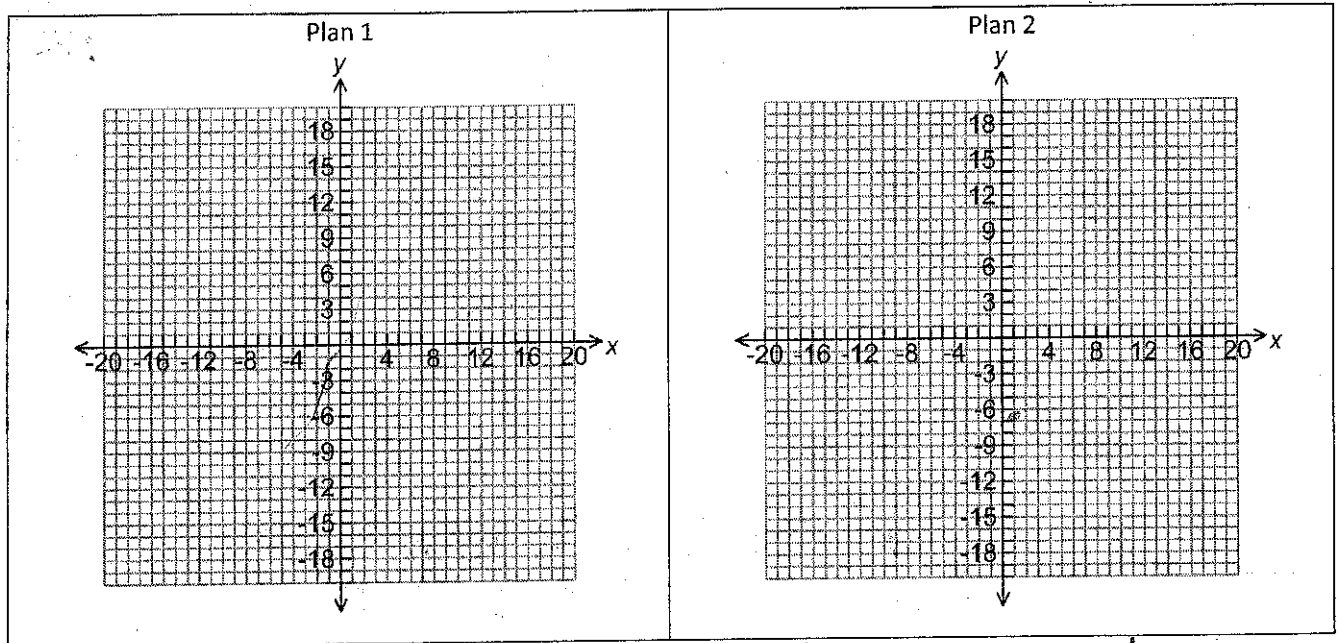
C. -11

D. 5

Performance Task

20. A newly developed neighborhood has dedicated a portion of their land to be used as a children's playground. The neighborhood would like to build a fence around a rectangular area of 100 square yards for a dog run. The coordinate planes below each represent the dedicated land. Each square on the grid represents one square yard. Each yard of fencing costs \$12. Develop two plans for the neighborhood to choose from.

Label the coordinates of the vertices and determine the price of the fencing for each plan (based on the perimeter). Then write a letter to the neighborhood explaining which design you recommend and why.



$$10\text{yd} \times 10\text{yd} = 100\text{yd}^2$$

$$2\text{yd} \times 5\text{yd} =$$

$$4\text{yd} \times 25\text{yd}$$

$$5\text{yd} \times 20\text{yd}$$

$$\begin{array}{r} 40 \\ \times 12 \\ \hline 80 \\ 400 \\ \hline 480 \end{array}$$

40 yds of fencing
\$480

104 yds of fencing
\$1248

$$\begin{array}{r} 104 \\ \times 12 \\ \hline 208 \\ 1040 \\ \hline 1248 \end{array}$$

58 yds of fencing
\$696

$$\begin{array}{r} 58 \\ \times 12 \\ \hline 116 \\ 580 \\ \hline 696 \end{array}$$

50 yds of fencing
\$600

$$\begin{array}{r} 50 \\ \times 12 \\ \hline 100 \\ 600 \\ \hline 600 \end{array}$$

I would choose 10x10 because it is a square & it is cheaper when putting up a fence.