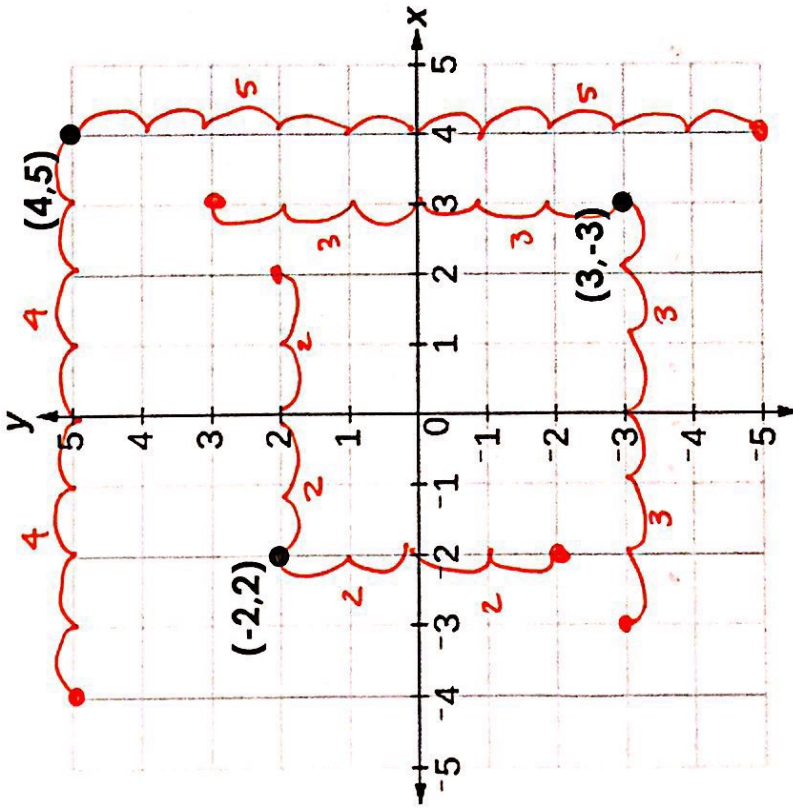


Math 6 - Unit 7: Rational Explorations

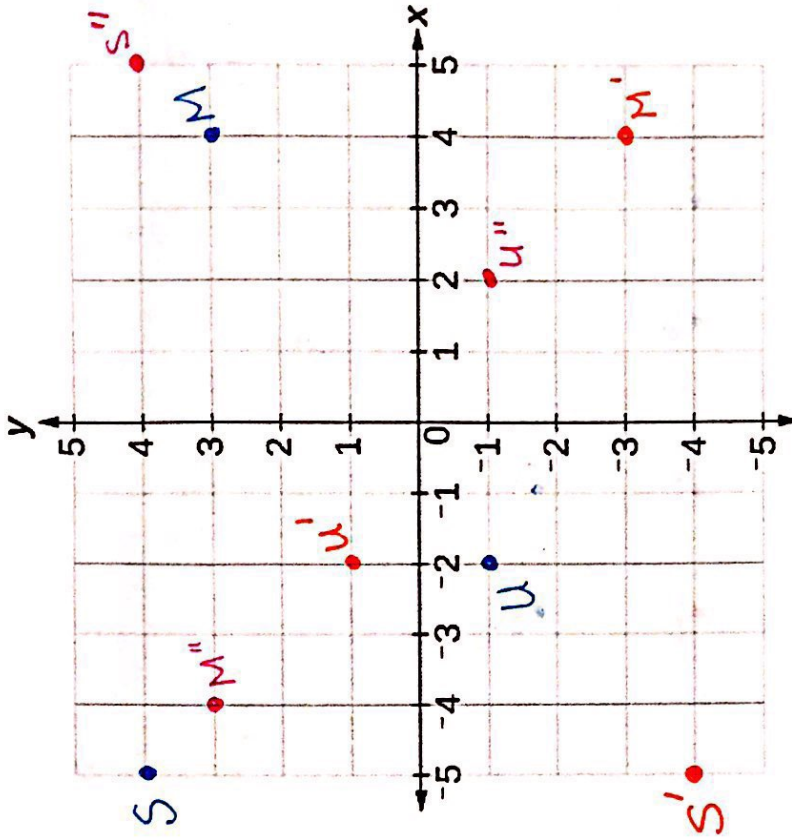
Reflecting Points on a Coordinate Plane

Find the ordered pair that is a reflection over the x-axis and then the y-axis of each of the points below.



Original Point	Reflected over x-axis	Reflected over y-axis
$(-2, 2)$	$(-2, -2)$	$(2, 2)$
$(4, 5)$	$(4, -5)$	$(-4, 5)$
$(3, -3)$	$(3, 3)$	$(-3, -3)$

Graph each ordered pair and find a reflection over the x-axis and then the y-axis for each point.



Original Point	Reflected over x-axis	Reflected over y-axis
$S(-5, 4)$	$S'(-5, -4)$	$S''(5, 4)$
$U(-2, -1)$	$U'(-2, 1)$	$U''(2, -1)$
$M(4, 3)$	$M'(4, -3)$	$M''(-4, 3)$

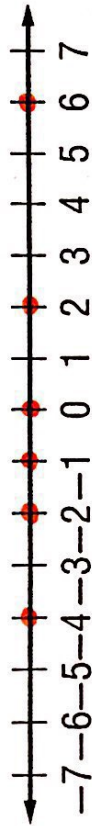
Extra Practice

For #'s 1-4, write an integer for each situation:

- 1) withdraw \$20 -20 2) a gain of 3 days vacation 3
- 3) 27 feet below sea level -27

- 4) 10 units to the right on a number line 10

- 5) Graph the set $\{-2, 2, 0, -1, 6, -4\}$ on the number line.



- 6) The opposite of -23 is: 23 7) The opposite of -16 is: 16
- 8) The opposite of 150 is: -150 9) The opposite of 56 is: -56

Find the absolute value for each of the problems below.

- 10) $|8|$ 8 11) $|-91|$ 91 12) $-|100|$ -100
- 13) $|-13|$ 13 14) $|729|$ 729 15) $-|-2|$ -2

Use the symbols $<$, $>$, $=$ to compare the following numbers.

- 16) $15 > 12$ 17) $|-32| < |37|$
- 18) $68 > -79$ 19) $|-47| = 47$

Put the numbers in order from LEAST to GREATEST.

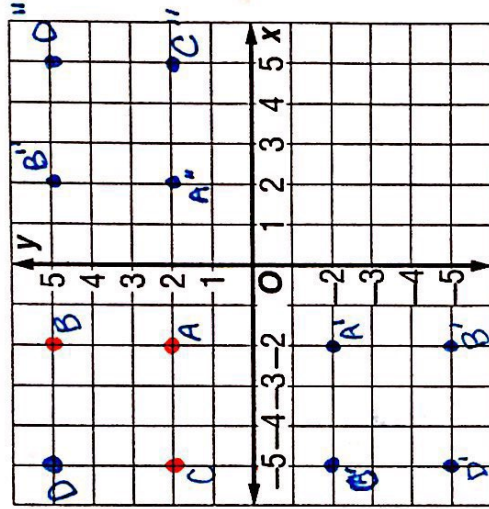
- 20) $-23, 58, 9, -38, 0$
 $-38, -23, 0, 9, 58$

- 21) $-71, -56, 2, 92, -7$
 $-71, -56, -7, 2, 92$

Missing Points

Graph the given coordinates below to find the missing ordered pair to finish the rectangle.

- A $(-2, 2)$, B $(-2, 5)$, C $(-5, 2)$, D $(-5, 5)$



- 1) What is the missing point? $(-5, 5)$
- 2) What is the perimeter of the rectangle? 12 units
- 3) What is the area of the rectangle? 9 units²

Bonus

Use the rectangle above and the coordinate plane to find the reflection of the rectangle across the x and y axis.

Reflection over the x-axis:

- A' $(-2, -2)$ B' $(-2, -5)$ C' $(-5, -2)$ D' $(-5, -5)$

Reflection over the y-axis:

- A'' $(2, 2)$ B'' $(2, 5)$ C'' $(5, 2)$ D'' $(5, 5)$