Do Now

Mystery Number

I am three times as far away from the number 5 as I am from the number 1. What number am I?

There are two mystery numbers that fit this clue. Can you find them both?

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NOTES

Integers: The set of positive whole numbers, their opposites, and zero.
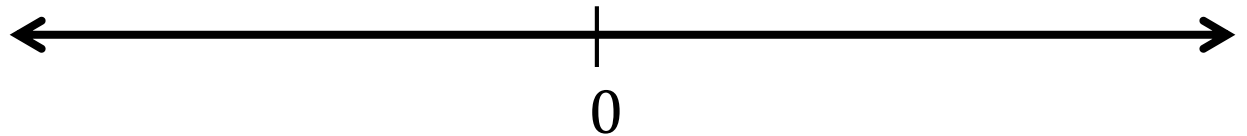
Opposites: Two numbers that are the same distance from zero on a number line, but in different directions.

Absolute Value: A number's distance from zero on a number line. You write "the absolute value" of -3 as $|-3|$

For each pair of integers:

- Graph each integer on the number line.
- Use the integers to write two inequalities, one using the > symbol, and one using the < symbol.
- Write the inequalities in words.
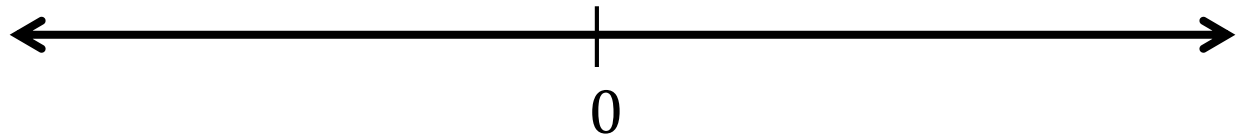
1) -2 and 6

← —————————|————————— →
　　　　　　　0

___ > ___　written:

___ < ___　written:

For each pair of integers:

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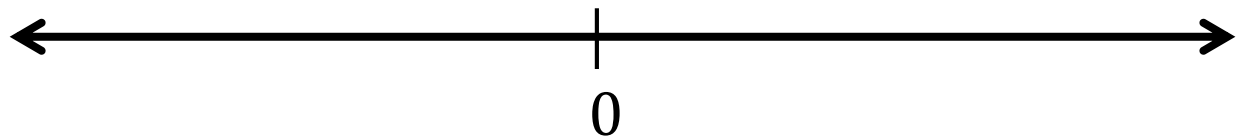- Write the inequalities in words.

2) 5 and -3

0

___ > ___   written:

___ < ___   written:

For each pair of integers:

- Graph each integer on the number line.
- Use the integers to write two inequalities, one using the > symbol, and one using the < symbol.
- Write the inequalities in words.

3)   -6 and -2

0

___ > ___   written:

___ < ___   written:

Two students, George and Melissa, answered the following question:

What is correct order for these integers?
                    0, -3, 11, -55, -6, 12, -18, -4, and 6

They each had a different answer.

George's answer: -55, -18, -6, -4, -3, 0, 6, 11, 12
Melissa's answer: 12, 11, 6, 0, -3, -4, -6, -18, -55

With whom do you agree? Why?

Which two numbers have an absolute value of 7?

Which number in each pair is farther away from zero?

4, -5   2, 5   -1, -3

Find each absolute value.

$$|10| \qquad |{-}11| \qquad |{-}3|$$

Compare using <, =, or >

0 ☐ -2

-6 ☐ -3

-4 ☐ -5

|-3| ☐ 2