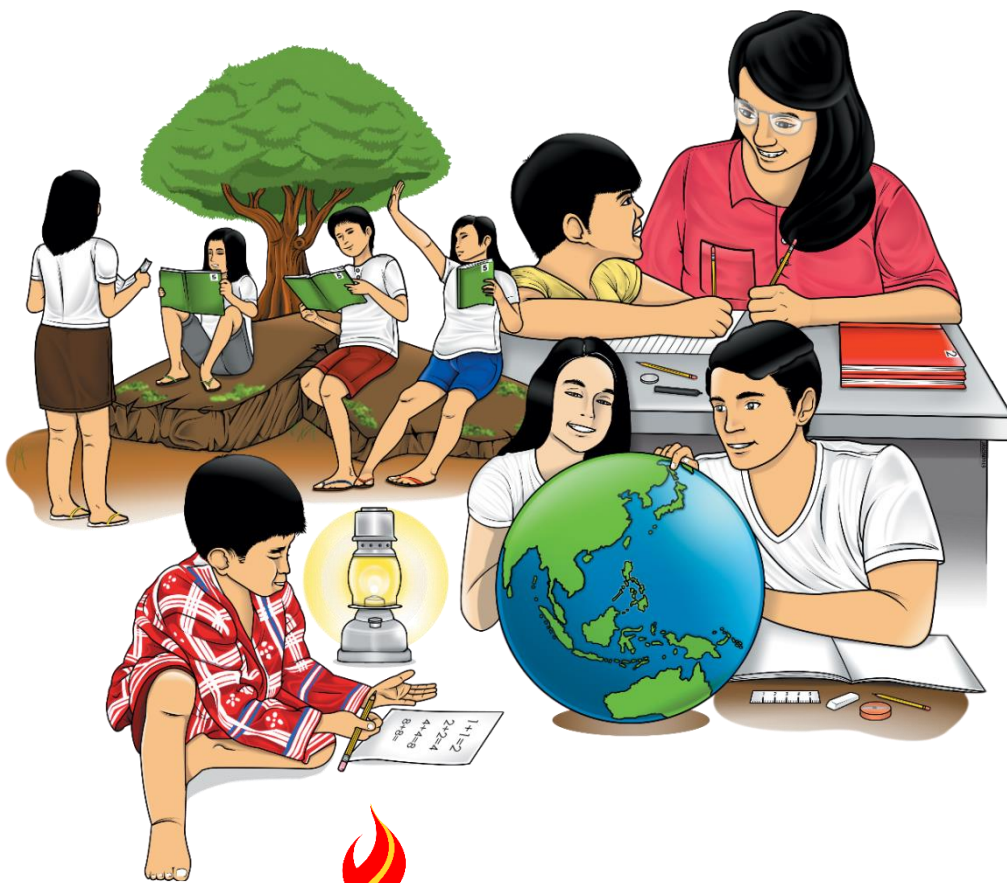


Mathematics

Quarter 2 – Module 9: Comparing Integers with Whole Numbers, Fractions, and Decimals



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Mathematics – Grade 6
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Quarter 2 – Module 9: Comparing Integers with Whole Numbers, Fractions, and Decimals
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Mathematics

Quarter 2 – Module : Comparing Integers with Whole Numbers, Fractions, and Decimals



What I Need to Know

This module was designed and written with you in mind. It is here to help you master comparing integers with whole numbers, fractions and decimals. The scope of this module permits it to be used in many different learning situations. The language used recognizes your vocabulary level. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module contains lesson on comparing integers with whole numbers, fractions, and decimals **(M6NS-IIg-152)**

After going through this module, you are expected to:

1. identify positive and negative integers;
2. compare integers with other numbers such as whole numbers, fractions, and decimals; and,
3. use a number line to compare integers with whole numbers, fractions, and decimals.



What I Know

A. Below are pair of numbers to be compared. Use the following relational symbols $<$, $>$, or $=$. Write your answers on your answer sheet.

1) 25 0.25

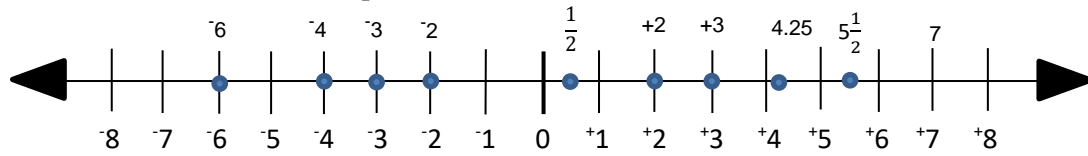
2) 7 1.5

3) -1 $\frac{5}{8}$

4) +98 $7\frac{1}{8}$

5) 27 -29.16

B. Use the number line to compare the numbers below.



- 6) Which is greater, -2 or 7? _____
- 7) Which is greater, $\frac{1}{2}$ or +3? _____
- 8) Which is greater, -6 or 4.25? _____
- 9) Which is lesser, 2 or -4? _____
- 10) Which is lesser, $5\frac{1}{2}$ or -6? _____

Lesson**1****Comparing Integers with Whole Numbers, Fractions, and Decimals**

You have learned how to describe the set of integers and identify real-life situations that make use of integers in the past lesson. Now, you will learn how to compare integers with other numbers such as whole numbers, fractions and decimals.

***What's In***

Read the given situations below. Write an integer to represent each situation on your answer sheet.

- 1) May gained 2 pounds after a month of taking food supplement.
- 2) Ann moves 4 steps backward as she dances.
- 3) Mr. Cruz deposited P2 000.00.
- 4) Ray stretches his arms 10 cm. upward to reach the fruit of the guava tree.
- 5) Jean withdrew the amount of P1 500.00 from her savings account.

***What's New***

During the Math Camp, Gia and her team is going to solve a challenge. Their task is to compare -2 with the numbers given below:

$$\{2, 0.5, 1\frac{1}{4}\}$$

If you are a member of the team, how would you compare the given numbers?

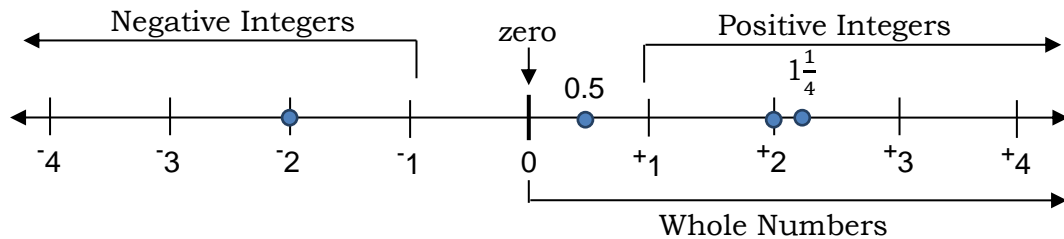


What is It

When comparing integers with whole numbers, fractions, and decimals, the one that is on the right direction of the number line has greater value.

Study the following.

Let us plot the numbers $(-2, 2, 0.5, 1\frac{1}{4})$ on the number line.



- A. Compare the integer -2 and the whole number 2 .
Since -2 can be found to the left of 2 ; therefore, -2 is less than 2 .

Let us use a relation symbol to compare the two numbers.

$$-2 \boxed{<} 2$$

- B. Compare the integer -2 and the decimal number 0.5 .

Since -2 can be found to the left of 0.5 ; therefore, -2 is less than 0.5 .

Let us use a relation symbol to compare the two numbers.

$$-2 \boxed{<} 0.5$$

- C. Compare the integer -2 and the mixed number $1\frac{1}{4}$.

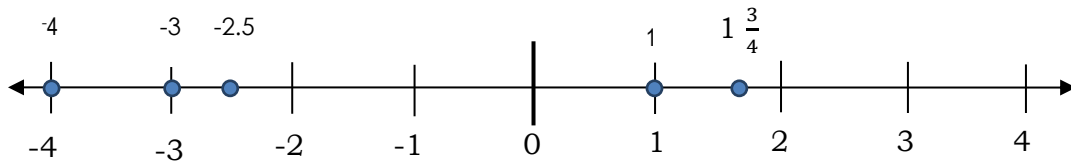
Since -2 can be found to the left of $1\frac{1}{4}$; therefore, -2 is less than $1\frac{1}{4}$.

Let us use a relation symbol to compare the two numbers.

$$-2 \boxed{<} 1\frac{1}{4}$$

Here is another example:

Plot the following numbers on the number line and study how the pair of numbers are compared. $(-4, -2.5, 1, 1\frac{3}{4}, -3)$



A. $2.5 \square -4$

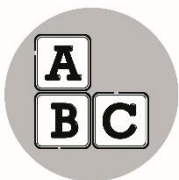
B. $1 \square 1\frac{3}{4}$

C. $3 \square -2.5$

Answer: A. $2.5 \square > -4$

B. $1 \square < 1\frac{3}{4}$

C. $-3 \square < -2.5$



What's More

Below are pair of numbers for you to compare. Choose the appropriate relation symbol $>$, $<$, $=$ to make the expression true.

1) $+9 \square \frac{1}{2}$

2) $0.36 \square -6$

3) $\frac{1}{3} \square +2$

4) $0 \square -9$

5) $-5 \square -5.8$



What I Have Learned

You can use a number line to compare integers with whole numbers, fractions and decimals.

Whole numbers are set of positive integers and 0. Whole numbers have no fractional or decimal part, and no negatives.

Fractions and decimals are found between integers and whole numbers.

When comparing integers with whole numbers, fractions, and decimals, the one that is farther to the right on the number line has greater value.



What I Can Do

A. Write $>$, $<$, $=$ on the blank to make each expression true. Write your answer on your answer sheet.

1) -5 10

2) $+9$ $\frac{1}{8}$

3) -7 0.7

4) -15 -15.5

5) 0.5 $\frac{1}{2}$

B. Read carefully each situation and write the correct answer on your answer sheet.

6) In a number line, Jean plotted 0.15 and -15 . Which is higher?

7) Which is lower, -2 or $\frac{3}{4}$?

8) How would you compare 15 and $+15$?

9) Which is greater, 0.7 or $+1$?

10) Which is lesser, 1 or 0.25 ?



Assessment

A. Plot the following pair of numbers below on the number line. Write $>$, $<$ or $=$ to make each mathematical statement true. Write your answer on your answer sheet.

1) -1.5 $+5$

2) -7 -1.5

3) $\frac{12}{17}$ -6

4) $+9$ -4.7

5) $+27$ 29.16

B. Read and answer the questions below. Write the letter of the correct answer on your answer sheet.

6) Which of the following statements is true?

A. $-15 > \frac{3}{4}$

C. $-8 = 8$

B. $1.4 < -24$

D. $+15 > -12$

7) Mrs. Reyes wrote the integer **-33** on the board. Which of the following is less than the given integer?

A. 0

B. $\frac{1}{3}$

C. -35

D. 1.2

8) Compare: -8 10

A. greater than

C. less than

B. neither

D. equal to

9) Which of the mathematical statements below shows the correct comparison?

A. $4 < -3$

B. $12 = +12$

C. $-6 > 1.2$

D. $-27 > \frac{5}{6}$

10) The following mathematical statements are true except one. Which one is it?

A. $-12 > 11$

C. $4.5 > +4$

B. $-2 < \frac{1}{4}$

D. $9 > -9$



Additional Activities

Plot the numbers $(-3.5, 9, -3\frac{1}{2}, 0.5, -4, 2, 0, 7\frac{1}{4})$ on the number line. Give five pairs of numbers and compare them using the relation symbols $>$, $<$, $=$.





Answer Key

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Additional Activities <input type="checkbox"/></p> <p>Possible Answers</p> <p>1) -3.5 9 =</p> <p>2) 0.5 -4 ></p> <p>3) 2 0 ></p> <p>4) -3.5 $-3\frac{1}{2}$ <</p> <p>5) -4 $-3\frac{1}{2}$</p> | <p>What I Can Do</p> <p>A. 1) > 6) 0.15</p> <p> 2) > 7) -2</p> <p> 3) > 8) equal</p> <p> 4) < 9) ></p> <p> 5) = 10) ></p> <p>B.</p> | <p>What's In</p> <p>1) +2</p> <p>2) -4</p> <p>3) +2 000</p> <p>4) -10</p> <p>5) -1 500</p> |
| <p>Assessment</p> <p>A. 1) < 6) D</p> <p> 2) < 7) C</p> <p> 3) > 8) C</p> <p> 4) > 9) B</p> <p> 5) > 10) A</p> <p>B.</p> | <p>What's More</p> <p>1) <</p> <p>2) ></p> <p>3) ></p> <p>4) ></p> <p>5) <</p> | <p>What I Know</p> <p>A. 1) B</p> <p> 2) A</p> <p> 3) B</p> <p> 4) A</p> <p> 5) C</p> <p>B. 6) -4</p> <p> 7) -1</p> <p> 8) +3</p> <p> 9) -5</p> <p> 10) +5</p> |

References

Most Essential Learning Competencies (MELCs) in Mathematics 6

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