

Concept: The Meaning of Integers

Name: _____

COMPUTER COMPONENT

Instructions: Select the computer program *Understanding Whole Numbers and Integers* (Neufeld)
Follow the instructions to the Main Menu.
Select *The Meaning of Integers* from the Main Menu.



Work through all sections of the following topics **in order**:

- *Integers Around Us*
- *The Integer Line*
- *Opposite Integers*
- *Absolute Values*
- *Comparing Integers*
- *Example Questions*
- *Practice Questions*

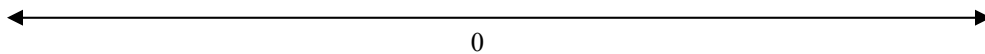


As you work through the computer exercises, make your own notes by filling in the blanks provided in the **SUMMARY** section of this page.


When you reach the end of the section *Practice Questions* on the computer, move on to the **OFF COMPUTER EXERCISES** below.


SUMMARY

- ✎ Positive integers indicate temperatures _____ zero or height _____ sea level.
- ✎ Negative integers indicate temperatures _____ zero or height _____ sea level.
- ✎ On the Integer Line, positive integers are found to the _____ of zero, whereas negative integers are found to the _____ of zero.
- ✎ Label the integer line below.



- ✎ The integers 4 and -4 are called _____ integers, since they are the same distance away from zero.
- ✎ The absolute value of a number is its distance away from _____.

 -1 is to the right of -4 on the number line, therefore -1 is greater than ____ .
We use the symbol ____ to represent the words "greater than".

 -3 is to the left of 1 on the number line, therefore -3 is less than ____ .
We use the symbol ____ to represent the words "less than".

OFF COMPUTER EXERCISES

1. Indicate whether the following integers are positive or negative.

-1 positive negative

5 positive negative

10 positive negative

-6 positive negative

2. Fill in each blank with $>$ (greater than) or $<$ (less than).

(a) -5 ____ 1

(b) 6 ____ -1

(c) -8 ____ -2

(d) -3 ____ -5

(e) -3 ____ 0

(f) -1 ____ 9

3. Translate the following into one mathematical statement.

example: $-1 < 2$ and $-1 > -3$ changed into one mathematical statement becomes: $-3 < -1 < 2$

(a) $-4 < 5$ and $-4 > -6$ becomes

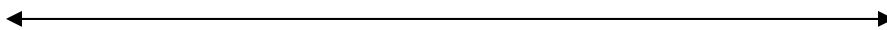
(b) $1 < 6$ and $-3 < 1$ becomes

(c) $0 < 2$ and $0 > -4$ becomes

4. Arrange the following temperatures from **smallest to greatest**.

5°C 10°C -3°C 0°C 40°C -40°C -12°C

5. (a) Create your own number line below.



(b) Use your number line to help you answer the following questions.

(i) Find 5 less than 1 : ____.

(ii) Find 4 less than 2: ____.

(iii) Find 2 less than -5 : ____.

(iv) Find 3 less than -2 : ____.

6. Indicate whether these statements are true or false.

(a) $-5 > 8$ true false

(b) $|-3| = -3$ true false

(c) $0 > -6$ true false

(d) $|-5| = 5$ true false

7. Represent each statement with an integer.

(a) 300m below sea level.

(b) Your brother made \$55 babysitting last week.

(c) You owe your Dad \$20.