

Subtracting Integers

To subtract integers, you add the second
number's opposite. Then you
follow the rules for addition.

Subtracting Integers (Real Numbers)

$$a - b = a + (-b)$$

or

$$a - (-b) = a + b$$

Leave,
Change,
Opposite

Example 1:

$$5 - (-3) =$$

The 2nd # is -3 and
the opposite of -3 is 3.

$$5 + 3 =$$

Add the second #'s opposite.

Example 2:

$$-9 - (-2) =$$

The 2nd # is -2. The
opposite of -2 is 2.

$$-9 + 2 =$$

Add the 2nd #'s opposite.



$$|-9| + |2| =$$

Follow the rules for adding integers.

$$|-9| + |2| = 7$$

Since the original signs were different \rightarrow subtract their absolute value and use the sign of the greater number.

$$-9 - (-2) = -7$$

-7

Example 3:

$$-3 - 5 =$$

The 2nd is 5. The opposite of 5 is -5.

$$-3 + -5 =$$

Add the 2nd number's opposite.

$$-3 + -5 = -8$$

Follow the rules for adding integers with the same sign.

$$|-3| + |-5| = -8$$

Add their absolute values and give the sum the same sign as the addends.

Practice:

$$1) 6 - 15 =$$

$$2) 8 - (-3) =$$

$$3) 6 - 13 =$$

$$4) -24 - (-8) =$$

$$5) 7 - 14 + 1 =$$

$$6) -12 + 14 - 3 =$$

- 7) Windchill factor is an estimate of the cooling effect the wind has on a person in cold weather. If the outside temperature is 10 degrees F and the wind makes it feel like -25 degrees F, what is the difference between the actual temperature and how cold it feels outside?