

## Adding Integers

### *(a) Adding Integers with the same sign*

Just add and keep the sign in your answer.

**Example:** (a)  $-11 + (-5) = -16$       (b)  $7 + 4 = 11$       (c)  $+6 + (+8) = 14$

Use this rule to add the following:

(a) $-14 + -7 =$	(b) $14 + 7 =$
(c) $11 + (+9) =$	(d) $-11 + (-9) =$
(e) $(-10) + (-1) =$	(f) $10 + 1 =$
(g) $(+17) + (+9) =$	(h) $(-17) + (-9) =$
(i) $12 + 8 =$	(j) $-12 + -8 =$

### *(b) Adding Integers with different signs*

Subtract, then write the sign of the bigger absolute value in your answer

**Example:** (a)  $5 + (-11)$

$$11 - 5$$

*11 is bigger and it is negative so*

$$= -4$$

(b)  $8 + (-7)$

$$8 - 7$$

*8 is bigger and it is positive so*

$$= 1$$

Use this rule to add the following:

(a) $-14 + 7 =$	(b) $14 + (-7) =$
(c) $11 + (-9) =$	(d) $-11 + (+9) =$
(e) $(-10) + (+1) =$	(f) $10 + (-1) =$
(g) $(-17) + (+9) =$	(h) $(+17) + (-9) =$
(i) $12 + (-8) =$	(j) $-12 + 8 =$

# Subtracting Integers

Just remember: **KEEP CHANGE CHANGE**

**Keep** the first number as it is

**Change** the  $-$  sign to a  $+$

**Change** the number after the sign to its opposite

Then use the rules for adding integers

**Example:** (a)  $9 - (-4)$

$$9 + (+4)$$

Use adding same sign rule

$$= 13$$

(b)  $-12 - 8$

$$-12 + (-8)$$

Use adding same sign rule

$$= -20$$

(c)  $-6 - (-5)$

$$-6 + (+5)$$

Use adding different sign rule

$$6 - 5$$

$$= -1$$

Use these steps to subtract the following:

(a) $-14 - 7 =$	(b) $14 - (-7) =$
(c) $11 - (-9) =$	(d) $-11 - (+9) =$
(e) $(-10) - (+1) =$	(f) $-10 - (-1) =$
(g) $(-17) - (+9) =$	(h) $(-17) - (-9) =$
(i) $-12 - (-8) =$	(j) $-12 - 8 =$

## Application:

The temperature in New York was  $-7^{\circ}\text{C}$  on Saturday. The temperature went up by  $17^{\circ}\text{C}$  on Sunday and dropped by  $6^{\circ}\text{C}$  on Monday.

*What was the temperature on Monday?*

