

Adding integers homework

Name: _____

Hour: _____

Using Rules to Add Integers

We looked at two models: chip boards and number lines. Now you are going to learn the addition rules.

Adding Integer Rules

Same Sign - The sum of two positive integers is positive. Ex: $3 + 6 =$ _____

The sum of two negative integers is negative. Ex: $-3 + -6 =$ _____

Different Signs - To add two integers with different signs, find the difference of their absolute values. The sum has the sign of the integer with the greater absolute value. Ex: $-10 + 15 =$ _____ $19 + -14 =$ _____

Use the rules to solve the following. Tell which rule you use (**same sign** or **different sign**) in the blank to the left.

1. _____ $-12 + (-31) =$ _____

2. _____ $7 + (-18) =$ _____

3. _____ $-22 + (-16) =$ _____

4. _____ $60 + (-13) =$ _____

5. _____ $-125 + 35 =$ _____

6. _____ $75 + -25 =$ _____

7. _____ $-157 + 48 =$ _____

8. _____ $-45 + -9 =$ _____

9. _____ $-208 + 64 =$ _____

10. _____ $-96 + -73 =$ _____

11. The earthquake monitor in Hockley, Texas, is located in a salt mine at an elevation of -416 m. The elevation of the monitor in Albuquerque, New Mexico, is 2,156 m higher than the one in Hockley. Find the elevation of the monitor in Albuquerque. Write the number sentence.

Sentence: _____ Elevation: _____

- 12) At 10:00 AM on a winter day in Fairbanks, Alaska, the temperature was $-12^{\circ}F$. Write the number sentence and find the temperature after each of the following temperature changes:

- a. Between 10:00 AM and Noon, the temperature rose $10^{\circ}F$.

Sentence: _____ current temperature: _____

- b. Between Noon and 3:00 PM, the temperature rose $15^{\circ}F$.

Sentence: _____ current temperature: _____

- c. Between 3:00 PM and 6:00 PM, the temperature dropped $13^{\circ}F$

Sentence: _____ current temperature: _____

- d. Between 6:00 PM and 9:00 PM, the temperature dropped $26^{\circ}F$

Sentence: _____ current temperature: _____

- e. Between 9:00 PM and Midnight, the temperature changed by $-19^{\circ}F$

Sentence: _____ current temperature: _____