

Assignment

Write

Define the term *additive inverse* in your own words.

Remember

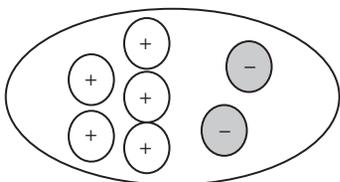
When two integers have the same sign and are added together, the sign of the sum is the sign of both integers.

When two integers have opposite signs and are added together, the absolute values of the integers are subtracted and the sign of the sum is the sign of the integer with the greater absolute value.

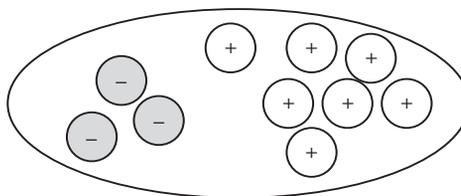
Practice

1. Write a number sentence for each two-color counter model. Then determine the sum.

a.



b.



2. Draw a two-color counter model for each number sentence. Then determine the sum.

a. $3 + (-6)$

b. $-7 + (-4)$

c. $2 + 5$

d. $10 + (-8)$

3. An atom is made up of protons, neutrons, and electrons. The protons carry a positive (+) charge and make up the nucleus of an atom with the neutrons. Neutrons do not carry a charge. The electrons carry a negative (-) charge and circle the nucleus. Atoms have no positive or negative charge. This means that they must have the same number of protons and electrons. A partial model of a nitrogen atom is shown.

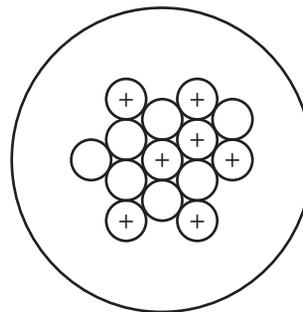
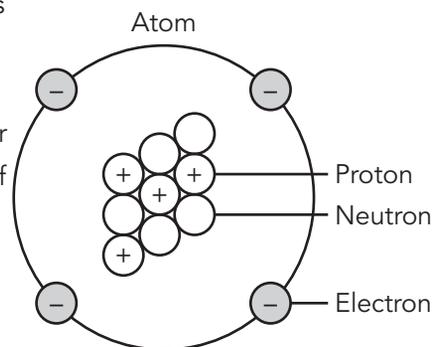
a. How many electrons should be drawn on the model of a nitrogen atom so that it has the same number of protons and electrons?

How did you know?

b. Complete the model of the nitrogen atom by drawing in the electrons.

c. Write a number sentence to represent the sum of the number of protons and electrons in a nitrogen atom.

d. Use a number line to show the sum of the number of protons and electrons in the nitrogen atom.



Determine each sum.

4. $45 + (-27)$

5. $32 + (-98)$

6. $-153 + 74$

7. $-63 + (-41)$

8. $527 + (-289)$

9. $-32 + 98$

10. $-47 + (-95)$

11. $-51 + 134$

Stretch

Determine each sum.

1. $21\frac{3}{8} + (-51\frac{1}{4})$

2. $-65\frac{2}{5} + 103$

3. $-34.528 + 78.12$

4. $863.78 + (-1024.01)$

Review

Use a number line to determine each sum.

1. $-3 + 4$

2. $-3 + (-4)$

Calculate the sale price of each item.

3. A pair of headphones is on sale for 15% off the original price of \$305.

4. A hoverboard is on sale for 10% off the original price of \$247.50.

Solve each proportion.

5. $\frac{3}{4} = \frac{x}{18}$

6. $\frac{5}{8} = \frac{21}{x}$