

Chapter 4 Review

Where is the Locker?

At Athens School, there are 3 floors numbered 1 to 3, 10 classrooms on each floor numbered 1 to 10, and 2 rows of 15 lockers next to each classroom, numbered 1 through 30. (How many total lockers are there?) Solve the equations below for the variables, and then use the clues to find the locker.

1. $7x = 28$

If x is a valid floor number, then it is the correct floor.

2. $3z + 1 = 13$

If z is even, the floor is even. If z is odd, the floor is odd.

3. $-27 = 3(y + 2)$

If y is a valid classroom number, then it is the classroom number.

4. $3c + 2 = 2c - 8$

If c is a valid classroom number, then it is the classroom number.

5. $-2r + 1 = 2r - 3$

r is not the floor number, the room number, or the locker number.

6. $3(j + 2) = j$

If j is even, the locker number is even. If j is odd, the locker number is odd.

7. $\frac{2}{3}n = 14$

If n is a valid locker number, then it is the locker number.

8. $\frac{2}{5}b = \frac{12}{5}$

If b is a valid room number, then it is the correct room number.

9. $3(2 - k) = 4k - 8$

If k is a valid floor number, then it is the floor number. If it is not the floor number, then it is the room number.

The total number of lockers is _____.

The locker is on floor _____.

The locker is next to room _____.

The locker number is _____.

Answers are located on page 113.