

Solve this equation. Next to each step, write in complete sentences what you did and why you did it:

$$3z + 9(z + 1) = -3(5 + z) - 6$$

$$3z + 9z + 9 = -15 - 3z - 6$$

★ First, I used the distributive property so I could get rid of the parentheses.

$$3z + 9z + 9 = -15 - 3z - 6$$

$$12z + 9 = -21 - 3z$$

★ Then, I combined like terms to make the equation easier to solve.

$$12z + 9 = -21 - 3z$$

$$+ 3z \qquad \qquad \qquad + 3z$$

$$15z + 9 = -21$$

★ Then, I added the opposite of $-3z$ to both sides to isolate the variable.

$$15z + 9 = -21$$

$$-9 = -9$$

$$15z = -30$$

★ Then I did the same thing again to the numbers without variables. Then divided 30 by 15.

$$z = 2$$