## Lesson 15 Summary

To solve the equation $x + 8 = -5$, we can add the opposite of 8, or -8, to each side:

$$x + 8 = -5$$
$$(x + 8) + -8 = (-5) + -8$$
$$x = -13$$

Because adding the opposite of a number is the same as subtracting that number, we can also think of it as subtracting 8 from each side.

We can use the same approach for this equation:

$$-12 = t + -\frac{2}{9}$$
$$(-12) + \frac{2}{9} = \left(t + -\frac{2}{9}\right) + \frac{2}{9}$$
$$-11\frac{7}{9} = t$$

To solve the equation $8x = -5$, we can multiply each side by the reciprocal of 8, or $\frac{1}{8}$:

$$8x = -5$$
$$\frac{1}{8}(8x) = \frac{1}{8}(-5)$$
$$x = -\frac{5}{8}$$

Because multiplying by the reciprocal of a number is the same as dividing by that number, we can also think of it as dividing by 8. We can use the same approach for this equation:

$$-12 = -\frac{2}{9}t$$
$$-\frac{9}{2}(-12) = -\frac{9}{2}\left(-\frac{2}{9}t\right)$$
$$54 = t$$