



# Simplifying Linear Expressions

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Grade 7 Linear Equation Worksheet

Date: \_\_\_\_\_

Name: \_\_\_\_\_

## LET'S MAKE SIMPLIFYING LINEAR EXPRESSIONS EASY

Evaluate each expression using the given values

1.  $8 + x$  when  $x = 21$

2.  $y + 20$  when  $y = -33$

3.  $\frac{-y}{-42}$  when  $y = 6$

4.  $7x$  when  $x = 5$

5.  $14b$  when  $b = -6$

6.  $-z + 25$  when  $z = 54$

7.  $-19 + 4x$  when  $x = 20$

8.  $-54 \div y$  when  $y = 9$

9.  $-16 + (2x + 5)$  when  $x = \frac{1}{2}$

10.  $\frac{y+(-18)}{25-y} =$  when  $y = -7$

## Simplifying Linear Expressions

### Answers

$$\begin{aligned} 1. \quad & 8 + x \\ & = 8 + 21 \\ & = 29 \end{aligned}$$

$$\begin{aligned} 2. \quad & y + 20 \\ & = -33 + 20 \\ & = -13 \end{aligned}$$

$$\begin{aligned} 3. \quad & \frac{-y}{-42} \\ & = \frac{-6}{-42} \\ & = \frac{1}{7} \end{aligned}$$

$$\begin{aligned} 4. \quad & 7(x) \\ & = 7(5) \\ & = 35 \end{aligned}$$

$$\begin{aligned} 5. \quad & 14(b) \\ & = 14(-6) \\ & = -84 \end{aligned}$$

$$\begin{aligned} 6. \quad & -z + 25 \\ & = -(54) + 25 \\ & = -29 \end{aligned}$$

$$7. \quad -19 + 4x$$

$$\begin{aligned} & -19 + 4(20) \\ & -19 + 80 = 61 \end{aligned}$$

$$\begin{aligned} 8. \quad & \frac{-54}{y} \\ & = \frac{-54}{9} \end{aligned}$$

$$= -6$$

$$\begin{aligned} 9. \quad & -16 + (2x + 5) \\ & = -16 + (2\frac{1}{2} + 5) \\ & = -16 + (7\frac{1}{2}) \\ & = -8\frac{1}{2} \end{aligned}$$

$$\begin{aligned} 10. \quad & \frac{y + (-18)}{25 - y} \\ & = \frac{-7 + (-18)}{25 - (-7)} \\ & = \frac{-7 - 18}{25 + 7} \\ & = -\frac{25}{32} \end{aligned}$$