

5-10 Writing and Simplifying Expressions

Using the integers -1 , -2 , -3 , and -4 , write expressions that equal the numbers at the right. You may use the four operations of addition, subtraction, multiplication, and division, as well as grouping symbols. You must use each number once in each expression. The first problem is done for you. **Note:** Several expressions are possible for some answers.

- | | | |
|-----|---------------------------|-----|
| 1. | $-4 + -3 + -2 + -1 = -10$ | -10 |
| 2. | _____ | -9 |
| 3. | _____ | -8 |
| 4. | _____ | -7 |
| 5. | _____ | -6 |
| 6. | _____ | -5 |
| 7. | _____ | -4 |
| 8. | _____ | -3 |
| 9. | _____ | -2 |
| 10. | _____ | -1 |
| 11. | _____ | 0 |
| 12. | _____ | 1 |
| 13. | _____ | 2 |
| 14. | _____ | 3 |
| 15. | _____ | 4 |
| 16. | _____ | 5 |
| 17. | _____ | 6 |
| 18. | _____ | 7 |
| 19. | _____ | 8 |
| 20. | _____ | 9 |
| 21. | _____ | 10 |

5-9 Integer Operations

Simplify each expression and write the answer in the space provided. Then write the letter of the expression in the space above its answer at the bottom of the page to complete the statement. The first problem is done for you.

L. $-15 + 46 + -38 = \underline{-7}$

R. $-28 - (-40) = \underline{\hspace{2cm}}$

S. $-16 \times -3 = \underline{\hspace{2cm}}$

Y. $-8 \times 6 \times 4 \times -3 = \underline{\hspace{2cm}}$

X. $-381 \div -3 = \underline{\hspace{2cm}}$

H. $256 \div -4 = \underline{\hspace{2cm}}$

W. $-4(-3 + -6 + -20) = \underline{\hspace{2cm}}$

I. $15 - 39 - 12 - (-19) = \underline{\hspace{2cm}}$

F. $(22 \times -4) - (-12) = \underline{\hspace{2cm}}$

B. $34 \times 2 \times -3 = \underline{\hspace{2cm}}$

E. $-345 + -18 + -20 + 212 = \underline{\hspace{2cm}}$

U. $92 - (-6) + 18 - 12 = \underline{\hspace{2cm}}$

N. $[15 + -3 - (-6)] \div (-28 + 19) = \underline{\hspace{2cm}}$

T. $-28 - (-47) + 28 - (-54) = \underline{\hspace{2cm}}$

O. $(25 + 2) \div (21 + -12) = \underline{\hspace{2cm}}$

M. $(-28 \div -4) - (-52 \div -4) = \underline{\hspace{2cm}}$

G. $(6 - 12) \times [4 - (-8)] = \underline{\hspace{2cm}}$

P. $(-25 \times -10) \div (-5 \times -10) = \underline{\hspace{2cm}}$

Use the following strategy for operations with integers: Simplify all

$$\frac{-171}{-171} \frac{127}{127} \frac{5}{5} \frac{12}{12} \frac{-171}{-171} \frac{48}{48} \frac{48}{48} \frac{-17}{-17} \frac{3}{3} \frac{-2}{-2} \frac{48}{48}$$

$$\frac{116}{116} \frac{-17}{-17} \frac{101}{101} \frac{-64}{-64} \frac{-17}{-17} \frac{-2}{-2} \frac{-72}{-72} \frac{12}{12} \frac{3}{3} \frac{104}{104} \frac{5}{5} \frac{-17}{-17} \frac{-2}{-2} \frac{-72}{-72}$$

$$\frac{\quad}{48} \frac{\quad}{576} \frac{\quad}{-6} \frac{\quad}{-204} \frac{\quad}{3} \frac{\quad}{-7} \frac{\quad}{48} \frac{\quad}{-76} \frac{\quad}{-17} \frac{\quad}{12} \frac{\quad}{48} \frac{\quad}{101}$$