

Adding & Subtracting Signed Numbers Homework

Directions: Be sure to show all work, communicate your thought process, and justify your reasoning. Remember to check that your answers are complete, correct, and reasonable.

Simplify each expression.

1. $|-19|$

2. $|2 - 7|$

3. $|3 - (-10)|$

4. $-40 + 25$

5. $11 - 8 + (-3)$

6. $-10 + 5 - 2 + 1$

7. $h - 9$ if $h = 1$

8. $m + s - 1$ if $m = -3$ and $s = 12$

9. $5 - w + 2$ if $w = -2$

10. $|3 - k|$ if $k = 19$

11. $-14 + 22 - 10$

12. $34 - (-8) - (-2)$

Write and simplify a numerical expression to solve each problem.

13. The temperature was -2 degrees Fahrenheit at 12:00 AM. Throughout the day, the temperature dropped another 5 degrees, and then rose 27 degrees by 1:00 PM. What was the temperature at 1:00 PM?

14. John owed \$48 towards his credit card bill. At work today, he earned \$30. He spent \$9 on lunch though! John babysat at night, and earned an extra \$25. Can John pay off his bill? If so, how much will he have leftover after paying the bill? If not, how much more does he need to pay his bill?

15. **Choose option A or B.**

Option A: The Indianapolis Colts lost 5 yards, gained 20 yards, and then lost another 2 yards. What is their net yardage loss/gain?

Option B: Assume you ate 190 calories for breakfast, went to the gym and burned 250 calories during cardio and 70 calories lifting weights. Then, you had a protein shake for 160 calories. What is your net calorie intake/loss so far?

Looking Ahead:

16. You owe \$5 to three people. Write a numerical expression using signed integers to represent this situation, and simplify your expression to represent the total amount of money you owe as an integer. Do not forget to include the correct sign! 😊

17. Can you represent the situation in problem #16 using a different numerical expression that results in the same solution? Please do so!

Selected Solutions

1. 19 3. 13 5. 0 7. -8 9. 7 11. -2

13. $-2 - 5 + 27$; simplified: 20; The temperature at 1:00PM was 20 degrees Fahrenheit

15A: $-5 + 20 - 2$; simplified: 13; The Colts' total yardage gain is 13 yards

15B: $190 + -250 + -70 + 160$; simplified: 30; Your net calorie intake is 30 calories so far