

Chapter 1
Form C

For problems 1 – 8, perform the indicated operation or operations.

1. $2(-47 + 15) - (32 - 40)$ 1. _____

2. $\frac{10}{11} - \left(-\frac{4}{33}\right)$ 2. _____

3. $15 + 9 \div 3$ 3. _____

4. $\left(\frac{48}{125}\right) \div \left(-\frac{4}{5}\right)$ 4. _____

5. $(8 - 10)^4(7 - 2)^3$ 5. _____

6. -8^2 6. _____

7. $(8 - 10)^4(7 - 2)^3$ 7. _____

8. $\frac{(-3)^2(5 - 3^2)}{4 - 2 \cdot 3}$ 8. _____

For problems 9 – 10, simplify each algebraic expression.

9. $5 + 4(3x - 1)$ 9. _____

10. $-3x + [5 - 2(x + 1)]$ 10. _____

11. List all the irrational numbers in this set: 11. _____

$$\left\{-5, -\sqrt{3}, 0, 0.333\dots, \pi, \frac{9}{2}\right\}$$

Name _____ Date _____

12. Give an example of a number that is a whole number but not a natural number. 12. _____

13. Insert either $<$ or $>$ in the boxed area to make a true statement:
 -86 -100 13. _____

14. Find the absolute value: $|-1.24|$ 14. _____

15. Is $\frac{2}{5}$ a solution to the equation $5(x+4) = 6$? 15. _____

16. Determine whether the statement below is true or false: 16. _____
All rational numbers are whole numbers.

Translate the following from English to an algebraic expression or equation. Do not solve.

17. A number decreased by ten is equal to three times the sum of the number and two. 17. _____

For problems 18 – 19, evaluate each algebraic expression for the given value of the variable.

18. $(x+2)(x-3)$; $x = -1$ 18. _____

19. $x^4 - x - x$; $x = -3$ 19. _____

Name _____ Date _____

20. Use the commutative property of addition to write an equivalent algebraic expression. Then simplify the expression. 20. _____

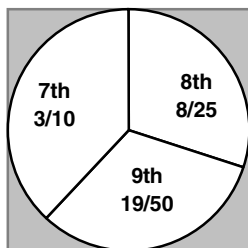
$$4 + x - 3$$

21. Use the associative property of multiplication to write an equivalent algebraic expression. Then simplify the expression. 21. _____

$$-2(4x)$$

22. The formula for converting degrees Fahrenheit (F) to degrees Celsius (C) is $C = \frac{5}{9}(F) - 32$. Find C when F is 86° . 22. _____

For problems 23 – 24, use the circle graph shown in the chart below. The circle graph shows the percentage of 7th, 8th, and 9th graders in a local junior high school with a total enrollment of 840 students.



23. How many students are 7th graders? 23. _____
24. How many students are not 7th graders? 24. _____
25. What is the difference in elevation between a hang glider at 130 feet above sea level and a submarine 716 feet below sea level? 25. _____