

Chapter 1
Form A

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

1. $9 - (-2) + (3 - 4)$ 1. _____

2. $-\frac{2}{3} - \frac{1}{2}$ 2. _____

3. $10 \div -5 \cdot 4$ 3. _____

4. $\left(-\frac{2}{3}\right) \div \left(-\frac{4}{9}\right)$ 4. _____

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

6. -5^2 6. _____

7. $(3 - 6)^3(4 - 8)^2$ 7. _____

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

For problems 9 – 10, simplify each algebraic expression.

9. $4(2a - 3b) - 3(4a - b)$ 9. _____

10. $8x - 4[5 - 3(x + 1)]$ 10. _____

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

$$\left\{-\frac{4}{3}, -1, 0, 1.7, \pi, \sqrt{9}\right\}$$

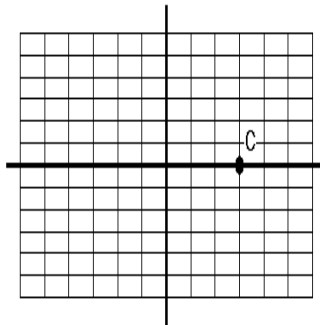
Name _____ Date _____

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

13. Insert either $<$ or $>$ in the boxed area to make a true statement:
 $-6 \square -10$ 13. _____

14. Find the absolute value: $|-4.5|$ 14. _____

For problems 15 – 16, plot and label the given point in the rectangular coordinate system below. Indicate in which quadrant each point lies.



15. $\left(\frac{1}{2}, -3\right)$ 15. _____

16. $(-4, 4)$ 16. _____

17. Find the coordinates of point C on the above graph. 17. _____

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

18. $-6(x+3)$; $x = 2$ 18. _____

19. $x^4 - x$; $x = -2$ 19. _____

20. Use the associative property of addition to write an equivalent algebraic expression. Then simplify the expression. $3 + (5 + x)$ 20. _____

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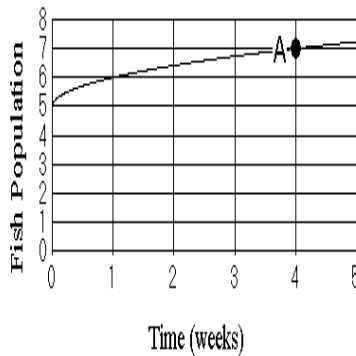
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21. Use the commutative property of multiplication to write an equivalent algebraic expression. Then simplify the expression. $(4x)^2$ 21. _____

There is an error in the formula in question 22. It should be $9/5$ instead of $5/9$.
Convert 40 degrees C to Fahrenheit. (Ans: 104 degrees)

22. The formula $F = \frac{5}{9}C + 32$ expresses the relationship between Celsius temperature, C , and Fahrenheit temperature, F . What is the Fahrenheit temperature equivalent to $72^\circ C$? 22. _____

For problems 23 – 24, the graph below represents the number of fish present in an aquarium.



23. Find the coordinates of point A and interpret the coordinates in terms of the information given. 23. _____
24. How many fish were initially placed in the aquarium? 24. _____
25. What is the difference in elevation between a plane traveling 21,625 feet above sea level and a submarine traveling 412 feet below sea level? 25. _____