

**Cumulative Review 1 – 2**  
**Form A**

For problems 1 – 7, perform the indicated operation.

1.  $42 - 3[6 - (4 - 15)]$  1. \_\_\_\_\_

2.  $19 - 16 \div 2 - 4^2$  2. \_\_\_\_\_

3.  $(7 - 3)^3(6^2 - 2^5)$  3. \_\_\_\_\_

4.  $\left| \frac{2}{7} \right|$  4. \_\_\_\_\_

5.  $\frac{7 - 2(15 - 2^3)}{3^2 - 5 \cdot 3}$  5. \_\_\_\_\_

6.  $14[x - (3 - x)] - (2x - 4)$  6. \_\_\_\_\_

7.  $6x^3 + 2x^2 - 4 - 2x^3 + 5x^2$  7. \_\_\_\_\_

8. Evaluate the expression for  $x = 4$  and  $y = 7$ . 8. \_\_\_\_\_

$$3(3x - y)$$

9. List all the whole numbers in the set:  $\left\{-\frac{17}{3}, -2, 0, 1, \sqrt{3}, \pi\right\}$  9. \_\_\_\_\_

10. What property is illustrated by: 10. \_\_\_\_\_  
 $(x + 3 + 4) = x + (3 + 4)$

For problems 11 – 13, solve the equation.

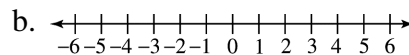
11.  $2 - 4(x - 3) = 2x - 3$  11. \_\_\_\_\_

12.  $\frac{2x}{3} - 1 = 4 - \frac{x}{4}$  12. \_\_\_\_\_

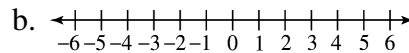
13.  $7(x + 2) = 3x - 5 + 4(x - 1)$  13. \_\_\_\_\_

For problems 14 – 16, solve the inequality and (a) express the solution in set-builder notation, and (b) graph the set on a number line.

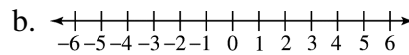
14.  $-6(x - 4) \geq 2x + 8$  14a. \_\_\_\_\_



15.  $7x - (-4 - x) > 3(x - 2)$  15a. \_\_\_\_\_



16.  $9 - 5(x - 3) < 7 - 4x - (x + 2)$  16a. \_\_\_\_\_



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17. Solve  $2x + y = 6$  for  $y$ . 17. \_\_\_\_\_

18. Solve  $A = \frac{1}{2}(b + c)$  for  $b$ . 18. \_\_\_\_\_

19. 36 is 12% of what number? 19. \_\_\_\_\_

20. 125 is what percent of 50? 20. \_\_\_\_\_

21. What is the difference in elevation between a balloon at 217 feet above sea level and a submarine 411 feet below sea level? 21. \_\_\_\_\_

22. An author earns \$1.15 for every book sold. How many books must be sold if the author wants to earn at least \$46,000? 22. \_\_\_\_\_

23. The sum of two consecutive integers is 431. Find the integers. 23. \_\_\_\_\_

24. Four times a number decreased by 25 is 307. Find the number. 24. \_\_\_\_\_

25. The circle chart shows the percentage of freshmen and sophomores at a local community college. If there are a total of 3900 students enrolled, how many are sophomores? 25. \_\_\_\_\_

