

Chapter 2
Form C

For problems 1 – 8, solve the equation.

1. $4x = 2x + 13$ 1. _____

2. $17y - 4 - 6y + 8 = 2(4y - 1)$ 2. _____

3. $1 - \frac{z}{2} = 2 + \frac{z}{3}$ 3. _____

4. $2 - (x + 3) = 3(2x + 6) + 2$ 4. _____

5. $2(5x - 4) = 5(2x + 3)$ 5. _____

6. $\frac{3z}{2} = \frac{z}{6} + 4$ 6. _____

7. $2 - 2(y + 4) = (-3 - 2y) - 3$ 7. _____

8. $4(2 - 6y) + 7 = 3(5 - 7y)$ 8. _____

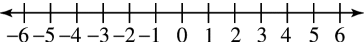
For problems 9 – 11, solve each inequality. Express the solution set in set-builder notation. If the inequality has no solution or is true for all real numbers, so state.

9. $3x - 28 > -13$ 9. _____

10. $4 - 3(x - 4) < 4 - 3x$ 10. _____

11. $7(x - 2) + 16 \leq 3(2 + 3x)$ 11. _____

For problems 12 – 13, solve each inequality. Graph the set on a number line. If the inequality has no solution or is true for all real numbers, so state.

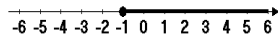
12. $8x + 9 \leq 5x + 15$ 12. 

13. $2(x - 5) - (3x + 3) < x - 7$ 13. 

Name _____

Date _____

14. Use set-builder notation to describe the following graph. 14. _____



15. Solve $A = \frac{1}{2}bh$ for h . 15. _____

16. Solve $2x + 3y = 6$ for x . 16. _____

17. 300 is 15% of what number? 17. _____

18. 27 is what percent of 1350? 18. _____

19. Find the volume of a cylinder whose radius is 7 inches and height is 10 inches. Express the answer in terms of π and Then round the answer to the nearest whole number. 19. _____

20. One credit card balance exceeds the other credit card balance by \$547. The total of the two credit card balances is \$2113. What is the balance on each credit card? 20. _____

21. The product of 7 and a number, increased by 23, is 1710. Find the number. 21. _____

22. The sum of two consecutive even integers is 6426. Find the two integers. 22. _____

23. Including a 7% sales tax, a car sold for \$23,005. What was the price of the car, to the nearest cent, before the tax was added? 23. _____

24. A café owner wants the prices of his three most popular main dishes to average \$11.50. If one main dish is \$15.40 and the second is \$9.20, what should be the price of the third main dish? 24. _____

25. A college student has budgeted \$25 a month for phone service. If the telephone company charges \$18 a month for basic service and \$.05 a minute for each long distance call, how many minutes can be spent on long distance calls each month? 25. _____