Chapter 1 Review Quiz 2 – Complete all work on lined paper. Do not turn in your work on this printout. Remember to work VERTICALLY down the page.

Solve the equations below. Remember to check your work.

1. $5.8 + 3.5(z - 4) = 9.3$
2. $7 = \frac{5}{6}c - 8$
3. $3.2 + \frac{x}{2.5} = 4.6$
4. $11w - 9 - 7w = 15$
5. $14 + 2(4g - 3) = 40$
6. $\frac{4}{3}(7 - n) = 12$
7. $-4a + 3 + 6a - 2 = 40$
8. $\frac{1}{3}(27x + 9) - \frac{1}{4}(16x - 8) = 10$
9. $\frac{3x+2}{6} - 4 = 2$
10. $13 - 4a = -67$
11. $5(1 + 4m) = 2(3 + 10m)$
12. $14 - \frac{2}{5}(j + 10) = \frac{2}{5}(25 + j)$
13. $16 = 6.5n - 3.3(2n - 5)$
14. $9(4h - 6) = 2(-13 - 2h)$
15. $\frac{1}{3}(6x + 3) = 2.6x - 5$

16. You are traveling 180 miles back to your home town for a class reunion. About 60 miles of the trip are through areas where the speed limit is 45 miles per hour and the rest of the trip is through areas where the speed limit is 55 miles per hour. Assuming that you can travel at the speed limits to get to the reunion, how long will it take you? Round your answer to the nearest tenth.

17. A guitar store offers a finance plan where you give a $50 down payment on a guitar and pay the remaining balance in 6 equal monthly payments. You have $50 and you can afford to pay up to $90 per month for a guitar. Can you afford a guitar that costs $542?

18. Find the length and width of the figure described below:
    The length is 5 units less than 2 times the width. The perimeter is 22 units more than twice the width.

19. A rectangle has a perimeter of 46 inches. The length of the rectangle is 3x and the width is x+5. What is the value of x and what are the dimensions of the rectangle? Hint: draw a picture

TELL WHETHER each SET OF EQUATIONS ARE EQUIVALENT OR NOT. EXPLAIN.

20. $4x+7=3x-7$ and $x+7=-7$
21. $2(x+2)=1/2(x-8)$ and $2x+2 = x/2 -8$

Solve the literal equations for the indicated value.

22. $2(d - x) = \frac{y}{3}$ for x.

23. $\frac{3z-y}{w} = y^2$ for z.

24. Solve for the value of b.

$\frac{1}{2}a + 3 + \frac{3}{2}a = 7$ and $4b + 14 = a + 20$

25. Solve for the perimeter of the square.