

PRACTICE Exam 1: Chapter 2

NAME _____

Math 90, Elementary Algebra

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100 points

Show all work to receive full credit. You may use a calculator. CHECK YOUR WORK!!!!

Solve the following equations for the unknown. (6 pts each)

1. $7x + 10 - 6x = 0$

2. $2y - 5 = -10 + 10y$

3. $18x + 7x - 9x = 32$

4. $-(4y - 8) - (-3y - 3) = -3$

5. $\frac{2}{3}j = \frac{5}{9}$

6. $\frac{2}{5}x - \frac{1}{3}x = 5$

7. $-2(-8x + 8) + 2(5 + 6x) = 4 + 4x + 5(12 + 5x)$

8. $\frac{3r - 3}{r} = \frac{7}{9}$

(8 pts each) For the next two problems (9 & 10), translate the following sentences into equations and solve for the unknowns:

9. Five times a number equals 8 less than 6 times the number. Find the number.

10. If 7 is added to a number and the sum is doubled, the result is 14 less than the number. Find the number.

11. (8 pts) Solve for the specified variable:

$$P = 2L + 2W \text{ for } W$$

12. (8 pts) Which is the best buy for a popular breakfast cereal?

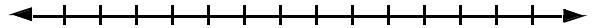
15-oz size: \$2.69

20-oz size: \$3.29

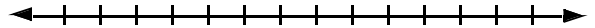
25.5-oz size: \$3.49

For problems 13, 14, & 15, solve each inequality and graph the solution set. Write your solutions using interval notation also.

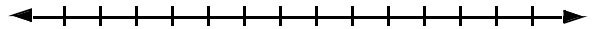
13. (6 pts) $9x < 45$



14. (6 pts) $4x - 3x > 10 - 4x + 7x$



15. (8 pts) $9 < 3m + 5 \leq 20$



BONUS (total of 10 extra points)



If the first and third of three consecutive odd integers are added, the result is 51 less than 5 times the second integer. Find all three odd integers.