

Name _____

Midterm Review - chapter 3

Date _____

Math 8

Chapter 3 - algebraic linear equations in one variable

Solve each equation below. Be sure to show your work.

1) $3(x - 1) - 8 = 4(1 + x) + 5$

2) $\frac{1}{4}(x + 2) - 2 = 0.5$

3) $4x + 5 = 2x - 7$

4) $\frac{1}{2}(6x + 2) = 2(x - 4)$

Identify whether each equation has one solution, no solution or an infinite number of solutions. Show your work

5) $2x - \frac{1}{4} = \frac{1}{8}(16x + 2)$

6) $\frac{1}{5}(x - 5) = \frac{1}{5}(x - 1)$

7) James earns three times as much as Billy in a week. Gabby earns \$40 more than Billy in the same week. The total weekly salaries for these three people is \$480.

a) If x represents Billy's weekly salary, write a linear equation to find the total weekly salary of the three people, in terms of Billy's salary, x .

b) What is Gabby's weekly salary?