6.1 & 6.2 QUIZ – Solving Algebraic Equations

For the following questions, use any strategy to solve for the unknown variables. Please remember to VERIFY your solution.

1. $-3c + 7 = 2c - 8$  VERIFY

2. $3.2 (v - 3) = 12.8$  VERIFY

3. $\frac{d}{7} - 3 = 11$  VERIFY

4. $\frac{21}{w} = -7$  VERIFY
5. $6x + 2 = 10 + 4x$  

6. $2(h - 1) = -3(h + 4)$  

7. $\frac{2b}{3} + \frac{11}{4} = 3 - \frac{11b}{6}$
8.
Solve the following question using any method. Please show all of your work.

Amy and Tyler are heading out on a road trip. They have a choice of 2 companies to rent an electric scooter.

Company A charges $224 per week, plus $0.20 per kilometre driven.

Company B charges $149 per week, plus $0.30 per kilometre driven.

**Determine the distance they must drive for the two rental costs to be the same.**

a) Select a variable and state what it stands for.

b) Model this problem with an equation.

c) Solve the problem.

d) Verify the answer.