

**Practice Quiz #1: Solving One, Two and Multi-Variable Equations and Formulas**  
**(Reference: Lesson #19, #21 & #23 in book)****Problem**

1. For each of the following equations, please solve for the indicated variable. Please show all of your work and put your answers as well as your work on the solution set sheet.

1. Solve  $6(2x + 1) - 6x + 2 = 32 - 2x - 12 + 6x$  for  $x$ .
2. Solve  $4(8 - 3y) = 32 - 8(y + 2)$  for  $y$ .
3. Solve  $16x - 8y = 24$  for  $y$ .
4. Solve  $2x - 6y = 32$  for  $x$ .
5. Solve  $-12x - 6y = 36$  for  $x$ .
6. Solve  $3(3y + 2) - 6y + 6x + 3 = 36$  for  $y$ .
7. Solve  $3(2x + 1) - 3y - 2x = 4(y - 3) + 2x - y + 5$  for  $x$ .
8. Solve  $V = \frac{1}{3}\pi r^2 h$  for  $r$ .