

## Homework #52 Simplifying Algebraic Expressions

Directions: Simplify the following algebraic expressions.

$$\begin{aligned}
 1) \quad & -4(-t+7) + 5(4+8t) \\
 & 4t - 28 + 20 + 40t \\
 & 4t + 40t + 28 + 20 \\
 & 44t - 8
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & 8(z+7) + 8 \\
 & 8z + 56 + 8 \\
 & 8z + 64
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & 2(4b+7+5b^2) - b \\
 & 8b + 14 + 10b^2 - b \\
 & 10b^2 + 8b + 14 \\
 & 10b^2 + 7b + 14
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & 6 - 3x + x - 1 - 10 + 2x \\
 & -3x + 1x + 2x + 6 + -1 + -10 \\
 & -5
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & -4 + 7(-6t - 9) \\
 & -4 - 42t - 63 \\
 & -42t + 4 + -63 \\
 & -42t - 67
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & -3k^2 + 3k + 10 + 3k^2 - 8 \\
 & -3k^2 + 3k^2 + 3k + 10 + -8 \\
 & 3k + 2
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & -8 + 3(-3n - 3) \\
 & -8 - 9n - 9 \\
 & -9n + -8 + -9 \\
 & -9n - 17
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & -(-2v - 9 + 6v^2) + 9v \\
 & 2v + 9 - 12v^2 + 9v \\
 & -12v^2 + 2v + 9v + 9 \\
 & -12v^2 + 11v + 9
 \end{aligned}$$