Lesson 13 Practice Problems

1. Mai and Tyler work on the equation $\frac{2}{5}b + 1 = -11$ together. Mai's solution is $b = -25$ and Tyler's is $b = -28$. Here is their work. Do you agree with their solutions? Explain or show your reasoning.

Mai:

$\frac{2}{5}b + 1 = -11$

$\frac{2}{5}b = -10$

$b = -10 \cdot \frac{5}{2}$

$b = -25$

Tyler:

$\frac{2}{5}b + 1 = -11$

$2b + 1 = -55$

$2b = -56$

$b = -28$

2. Solve $3(x - 4) = 12x$

3. Describe what is being done in each step while solving the equation.

   a. $2(-3x + 4) = 5x + 2$

   b. $-6x + 8 = 5x + 2$

   c. $8 = 11x + 2$

   d. $6 = 11x$

   e. $x = \frac{6}{11}$

4. Andre solved an equation, but when he checked his answer he saw his solution was incorrect. He knows he made a mistake, but he can't find it. Where is Andre's mistake and what is the solution to the equation?

$$
\begin{aligned}
-2(3x - 5) &= 4(x + 3) + 8 \\
-6x + 10 &= 4x + 12 + 8 \\
-6x + 10 &= 4x + 20 \\
10 &= -2x + 20 \\
-10 &= -2x \\
5 &= x
\end{aligned}
$$