Combining Like Terms

You must answer the following on your POD paper. Show each step the way we do in class!

1. **Solve** the following equations. **You must show each step**!

a. $9x + 3 = 5x + 27$ **b.** $11x + 32 = 8x + 5$ **c.** $2x - 13 = -5x - 55$

2. A student's incorrect work is shown. Explain what the student did wrong.

$$7x - 12 = 3x - 16$$
$$-3x \qquad -3x$$
$$4x - 12 = 16$$
$$+12 \qquad +12$$
$$\frac{4x}{4} = \frac{28}{4}$$
$$x = 7$$

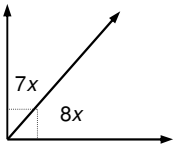
3. Simplify the following algebra equations, then solve. **You must show each step**!

a. $6x - 3x + 7 = 34$ **b.** $5x - 9x - 16 + 7 = 35$

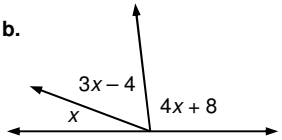
c. $9x + 3x + 31 = 8x - 3x + 3$ **d.** $-4x - 2x - 19 = -3x + 5x + 36 - 7$

4. For each of the following diagrams, write and solve an equation to find the value of x.

a.

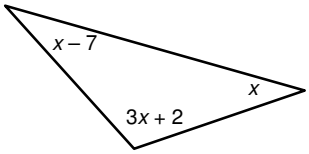


b.

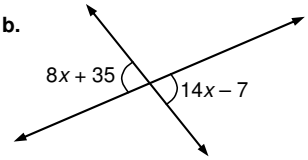


5. For each of the following diagrams, write and solve an equation to find the value of x.

a.

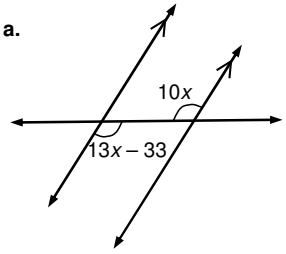


b.

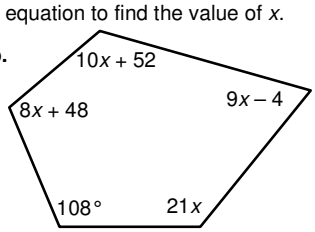


6. For each of the following diagrams, write and solve an equation to find the value of x.

a.



b.



7. **Solve** the following equations. **You must show each step**!

a. $9x - 16 = 6x + 11$ **b.** $10x - 13 = 12x - 25$

8. Simplify the following algebra equations, then solve. **You must show each step**!

a. $4x + 2x + 13 = 55$ **b.** $11x - 8x + 19 - 2 = 5$

c. $14x - 9x - 11 + 17 = -3x + 78$ **d.** $3x - 7x - 8 - 10 = 6x + 12$