

Algebra 1: Unit 3 Problem Set A

Name _____

Date _____ Period _____

SHOW ALL WORK!

Simplify each expression by removing parentheses and combining like terms.

SHOW ALL STEPS!!

1. $4(x + 9) - 10$

2. $4 + 2(x - 7)$

3. $4 - 2(x - 7)$

4. $-4(x - 9) - 10 + 2x - 3(x + 2)$

Solve for the indicated variable. Describe each step and check your solution.

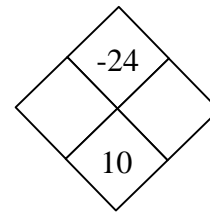
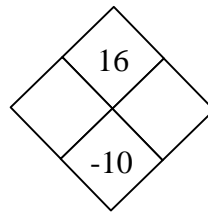
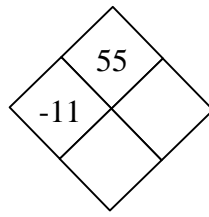
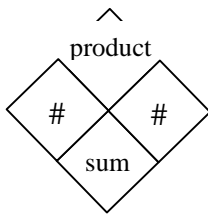
5.
$$\frac{u}{15} = 7$$

6.
$$\frac{m}{-4} = 13$$

7.
$$-\frac{4r}{5} = -8$$

8.
$$-50 = \frac{10n}{-6}$$

9. Copy and solve each of the following diamond problems:



In #10-18 solve for the indicated variable. Describe each step and check your solution.

10.
$$-2x - 5 = -11$$

11.
$$-\frac{2}{5}x + 4 = 8$$

12. $2n - 5 = 8n + 7$

13. $30 - 7z = 10z - 4$

14. $6x = 4(x + 5)$

15. $-36 + 2w = -8w + w$

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$$-2\left(r - \frac{1}{2}\right) = -2$$

17.

$$4p - 10 = p + 3p - 2p$$

18.

$$\frac{5n+1}{8} = \frac{1}{2}$$