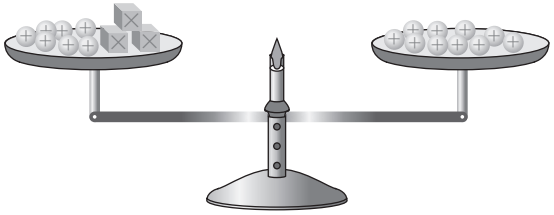
Name

3-3B Lesson Master

Questions on SPUR Objectives
See pages 178–179 for objectives.

PROPERTIES Objective C

In 1–3, refer to the balance scale.



1. What equation is modeled by the scale? _____

2. What two steps can be done with the weights, on each side of the scale, to find the value of x? _____

3. What is the value of x? _____

In 4–6, refer to the equation $4x + 1 = 9$.

4. Create a balance scale to represent the equation.

5. What two steps can be done with the weights, on each side of the scale, to find the value of x? _____

6. What is the value of x? _____

In 7–10, a pair of equations is given. Tell what was done to each side of the first equation to arrive at the second equation.

7. $-5x + 6 = 9$
   $-5x = 3$ _____

8. $-10 - 3x = 23$
   $-3x = 33$ _____

9. $1.2x + 5.3 = 11.3$
   $1.2x = 6$ _____

10. $\frac{7}{8}x = 56$
    $x = 64$ _____

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In 11 and 12, Bernadette solved the equation $\frac{3}{5}x - 2 = 7$.

$$\frac{3}{5}x - 2 = 7$$

Step 1: $\frac{3}{5}x = 9$

Step 2: $x = \frac{27}{5}$

11. Which step did her teacher mark incorrect? Why?

_____

12. Solve the equation again after correcting Bernadette's mistake to find the value of x. _____

In 13 and 14, tell what was done in each step to solve the equation.

13. $\frac{2}{3}x + 4 = -2$

$\frac{2}{3}x = -6$ _____

$x = -9$ _____

14. $-2x + 7 = -3$

$-2x = -10$ _____

$x = 5$ _____

In 15–20, solve each equation. Show your steps.

15. $5 - 1.2x = -5.8$

16. $6x + 82 = -32$

17. $3x - \frac{3}{4} = 3\frac{3}{4}$

18. $0.5x + 1.6 = 0.35$

19. $25 + \frac{2}{5}x = -3$

20. $-21x + 30 = -96$