

Name _____

Date _____

LESSON
2.5**Practice A***For use with pages 104–111*

If you turn this in on time: do the odds.

If you turn this in late or

you are doing it over: do the evens.

Complete the logical argument by giving a reason for each step.

Student
score:
How well
do you feel
you understand
this learning
target:

A
B
C
D
F

LESSON 2.5

1. $8x - 34 = 6$

$8x = 40$

$x = 5$

Given

a. ?

b. ?

Teacher

Score:

2. $4x - 7 = 6x + 7$

$-2x - 7 = 7$

$-2x = 14$

$x = -7$

Given

a. ?

b. ?

c. ?

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

$5x - 15 = 4x + 8$

$x - 15 = 8$

$x = 23$

Given

a. ?

b. ?

c. ?

4. $x = \frac{1}{7}y - 9$

$x + 9 = \frac{1}{7}y$

$7x + 63 = y$

$y = 7x + 63$

Given

a. ?

b. ?

c. ?

Solve the equation. Write a reason for each step.

5. $x + 18 = 7$

6. $5x = 4x + 8$

7. $7x - 9 = 4x$

8. $6x + 11 = 5x - 3$

9. $7x - 11 = 4x + 19$

10. $14x + 3 = 19x + 23$

11. $4(2x + 11) = 76$

12. $14(x + 1) = -7(4 + x)$

LESSON
2.5**Practice A** *continued*
For use with pages 104–111**Solve the equation for a . Write a reason for each step.**

13. $a - 3b = b + 7$

14. $4a + b = 5b + 28$

15. $b = 5a - 25$

16. $b = 3(2a - 24)$

Use the property to complete the statement.

17. Addition Property of Equality: If $RS = TU$, then $RS + 20 = \underline{\quad? \quad}$.

18. Multiplication Property of Equality: If $m\angle 1 = m\angle 2$, then $3m\angle 1 = \underline{\quad? \quad}$.

19. Substitution Property of Equality: If $a = 20$, then $5a = \underline{\quad? \quad}$.

20. Reflexive Property of Equality: If x is a real number, then $x = \underline{\quad? \quad}$.

21. Symmetric Property of Equality: If $AB = CD$, then $CD = \underline{\quad? \quad}$.

22. Transitive Property of Equality: If $m\angle E = m\angle F$ and $m\angle F = m\angle G$, then $\underline{\quad? \quad}$.

23. Skydiving As you begin a freefall, you have an accelerating downward velocity. Because of wind resistance, however, the acceleration slows and your velocity eventually becomes constant. This is called your *terminal velocity*. The terminal velocity of a typical skydiver is around 56 meters per second. A formula for the distance d (in meters) traveled in t seconds by a skydiver falling at this velocity is $d = 56t$.

- A skydiver reaches her terminal velocity of 56 meters per second and continues freefalling for 12 more seconds. How many meters does she fall during these 12 seconds?
- Solve the formula above for t . Write the reason for each step.
- Find the time it would take a skydiver to drop 840 meters while moving at a terminal velocity of 56 meters per second.

24. Windows The bottom section of the window pictured swings outward from the bottom to open in the style of an awning.

- Use the diagram and your knowledge of linear pairs to write an equation that relates a sum of two angle measures to 180° .
- Solve the equation for $m\angle DAC$.
- Find $m\angle DAC$ when $m\angle BAC = 112^\circ$.

