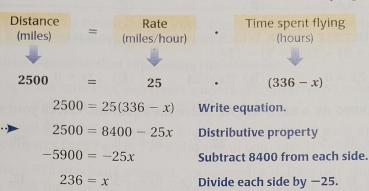## EXAMPLE 5 Write and solve an equation

BIRD MIGRATION A flock of cranes migrates from Canada to Texas. The cranes take 14 days (336 hours) to travel 2500 miles. The cranes fly at an average speed of 25 miles per hour. For how many hours of the migration are the cranes *not* flying?

Solution

Let x be the amount of time the cranes are not flying. Then $336 - x$ is the amount of time the cranes are flying.

Crane

Distance (miles)	=	Rate (miles/hour)	·	Time spent flying (hours)
2500	=	25	·	$(336 - x)$

ANOTHER WAY
You can also begin solving the equation by dividing each side of the equation by 25.

$2500 = 25(336 - x)$ Write equation.

$2500 = 8400 - 25x$ Distributive property

$-5900 = -25x$ Subtract 8400 from each side.

$236 = x$ Divide each side by -25.

▶ The cranes are not flying for 236 hours of the migration.

✓ **GUIDED PRACTICE** for Example 5

5. **WHAT IF?** In Example 5, suppose the cranes take 12 days (288 hours) to travel 2500 miles. For how many hours of this migration are the cranes *not* flying?

3.3 EXERCISES

HOMEWORK KEY

◆ = **MULTIPLE CHOICE PRACTICE**
Exs. 25, 26, 54, and 63–65

◯ = **HINTS AND HOMEWORK HELP**
for Exs. 21, 43, and 55 at classzone.com

SKILLS · PROBLEM SOLVING · REASONING

1. **VOCABULARY** What is the reciprocal of the fraction in the equation $\frac{3}{5}(2x + 8) = 18$?

2. **WRITING** *Describe* the steps you would use to solve $3(4y - 7) = 11$.

EXAMPLE 1
on p. 139
for Exs. 3–14

COMBINING LIKE TERMS Solve the equation. Check your solution.

3. $p + 2p - 3 = 6$

4. $12v + 14 + 10v = 80$

5. $11w - 9 - 7w = 15$

6. $5a + 3 - 3a = -7$

7. $6c - 8 - 2c = -16$

8. $9 = 7z - 13z - 21$

9. $-2 = 3y - 18 - 5y$

10. $23 = -4m + 2 + m$

11. $35 = -5 + 2x - 7x$

12. $4d - 13 + 7d = -24$

13. $-9 = 2b - 11b - 27$

14. $-23 = 26h - 7 + 6h$

3.3 Solve Multi-Step Equations   **141**