Lesson 33: From Equations to Inequalities

Classwork

Example 1

What value(s) does the variable have to represent for the equation or inequality to result in a true number sentence? What value(s) does the variable have to represent for the equation or inequality to result in a false number sentence?

a. $y + 6 = 16$

b. $y + 6 > 16$

c. $y + 6 \geq 16$

d. $3g = 15$

e. $3g < 15$

f. $3g \leq 15$

Example 2

Which of the following number(s), if any, make the equation or inequality true: $\{0, 3, 5, 8, 10, 14\}$?

a. $m + 4 = 12$

b. $m + 4 < 12$

c. $f - 4 = 2$

d. $f - 4 > 2$

e. $\frac{1}{2}h = 8$

f. $\frac{1}{2}h \geq 8$

Exercises 1–8

Choose the number(s), if any, that make the equation or inequality true from the following set of numbers: $\{0, 1, 5, 8, 11, 17\}$.

1. $m + 5 = 6$

2. $m + 5 \leq 6$

3. $5h = 40$

4. $5h > 40$

5. $\frac{1}{2}y = 5$

6. $\frac{1}{2}y \leq 5$

7. $k - 3 = 20$

8. $k - 3 > 20$

Problem Set

Choose the number(s), if any, that make the equation or inequality true from the following set of numbers: $\{0, 3, 4, 5, 9, 13, 18, 24\}$.

1. $h - 8 = 5$

2. $h - 8 < 5$

3. $4g = 36$

4. $4g \geq 36$

5. $\frac{1}{4}y = 7$

6. $\frac{1}{4}y > 7$

7. $m - 3 = 10$

8. $m - 3 \leq 10$