Name_____ Date_____ Period_____

LESSON 8-1 · SESSION 2 · PRACTICE · FORM B

Writing Equations

Learning target — I can write an equation for a situation and test a proposed answer. · 6.EE.B.6

REMEMBER

- Name the **unknown** with a letter and say what it stands for.
- **More / added**: +. **Left / fewer**: −. **Each / equal groups**: ×.
- Estimate, **test** your value, then revise until both sides match.

WORKED EXAMPLE

A baker made 64 rolls. Some were sold, and 27 were left. Write an equation and find the rolls sold.

Step 1 Let r = rolls sold. Made − sold = left: $64 - r = 27$.

Step 2 Test $r = 35$: $64 - 35 = 29$. Too many are left.

Step 3 Test $r = 37$: $64 - 37 = 27$. True.

Answer **$r = 37$, so 37 rolls were sold.**

WORDS **equation** *(ecuación)* · **variable** *(variable)* · **unknown** *(incógnita)*

PRACTICE

show your work · label units

1. Write an equation for each sentence. Use n.

a. A number plus 23 is 50. _____

b. 8 times a number is 72. _____

c. A number minus 11 is 25. _____

d. A number divided by 6 is 5. _____

2. **Coat Drive.** A coat drive collected c coats on Friday. On Saturday it collected 37 more. The two days together made 82 coats.

a. Write an equation using c. _____

b. Find c. Show one test. _____

3. **Reading Minutes.** Zoe read for m minutes on Monday. On Tuesday she read 12 fewer minutes, which was 44 minutes.

Hint *Fewer means subtract from Monday's minutes.*

a. Write an equation using m. _____

b. Test $m = 50$. Revise to find the solution. _____

4. Bus Riders. A bus left school with 52 students. After the first stop, 35 were still on. Write an equation for g, the students who got off. Solve it.

Hint *Start minus got off leaves still on.*

Show your work.

g =_____

5. Aquarium Water. A full tank holds 80 liters. Right now it holds 47 liters. Write an equation for w, the liters still needed. Solve it.

Hint *What you have plus what you need fills the tank.*

Show your work.

w =_____

6. Food Drive. A class collected c cans. They donated 64 cans and had 29 cans left. Write an equation. Then estimate and check to find c.

Hint *The cans collected must be more than 64.*

Show your work.

Equation; c_____

7. Team Buses. A team fills b buses with 40 students each, for 160 students in all.

a. Write an equation for the number of buses. _____

b. Test $b = 4$. Is it the solution? _____

8. Field Trip Cost. A trip costs a $90 fee plus $6 for each student. The total bill is $270.

a. Define a variable. Write an equation. _____

b. Test 30 students. Does it fit the bill? _____

c. If there were no $90 fee, what equation fits a $270 bill? _____

FIND THE ERROR

explain the mistake, then fix it

9. Priya's Work. A bag had 60 beads. Some were used, and 18 were left. Priya wrote $18 - b = 60$ and answered $b = 42$. Explain her mistake. Write the correct equation.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. "7 times a number equals 63" is written –

A $7 + n = 63$ **B** $n - 7 = 63$ **C** $7n = 63$ **D** $n \div 7 = 63$

11. "A number decreased by 6 equals 21" is written –

A $n + 6 = 21$ **B** $6 - n = 21$ **C** $6n = 21$ **D** $n - 6 = 21$

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

32 Z	45 S	119 Q	93 E	35 J	33 V	87 X	17 L	56 O

#2b	#3b	#4	#5	#6

CHECK YOURSELF	☐ I can do this on my own	☐ I need a little help	☐ I have a question about #___