Name_____ Date_____ Period_____

LESSON 9-4 · SESSION 1 · PRACTICE · FORM A

Substitute and Solve

Learning target – I can substitute a value into an equation to find the matching output. · 6.EE.C.9

REMEMBER

- **Substitute** means put a known number in place of a letter. Then do the math and add units.
- With a fee, **multiply first**, then add: $c = 3n + 10$ with $n = 4$ is $3 \times 4 + 10 = 22$.
- Check that the answer is **reasonable** and answers the question asked.

WORKED EXAMPLE

A bakery makes 24 rolls each hour: $r = 24h$. Is 5 hours enough for 150 rolls?

Step 1 Substitute $h = 5$: $r = 24 \times 5 = 120$ rolls.

Step 2 Compare: $120 < 150$.

Answer **No, 5 hours makes only 120 rolls**

WORDS **substitute** *(sustituir)* · **equation** *(ecuación)* · **reasonable** *(razonable)*

PRACTICE

show your work · label units

1. Substitute to find the output.

a. $y = 6x$; $x = 12$ _____

b. $c = 5h + 10$; $h = 4$ _____

c. $y = 9x + 2$; $x = 5$ _____

d. $y = 7x + 3$; $x = 10$ _____

2. **Candle Workshop.** A workshop pours 18 candles every hour. A store orders 900 candles.

a. Write an equation for the candles y made in x hours. _____

b. Find the candles made in 12 hours. _____ candles

c. Is a 7-hour day enough for the order? Explain. _____

3. **Cookie Trays.** A bakery bakes 24 cookies on every tray. Write an equation for the cookies c on t trays. Find the cookies on 16 trays.

Hint *Write the rule, then put in the number of trays.*

Show your work.

Answer_____ cookies

4. **Steady Swimmer.** Jordan swims 50 meters every minute. Write an equation for the meters m in n minutes. Find the meters in 9 minutes.

Hint *Replace the letter for minutes with the number.*

Show your work.

Answer_____ meters

5. Sandbag Crew. A crew fills 8 sandbags every minute. After 45 minutes, the crew says it filled 360 sandbags. Does that claim fit the rate?

Hint *Substitute the time, then compare with the claim.*

Show your work.

Fits?_____

6. Skateboard Shop. A shop builds 2.5 skateboards each hour. Write an equation for the boards b in h hours. Find the boards built in 24 hours.

Hint *Multiply the decimal rate by the hours.*

Show your work.

Answer_____ boards

7. With a Fee. A rental costs $c = 14h + 25$ dollars for h hours. Find the cost for 6 hours.

Hint *Multiply first, then add the fee.*

Show your work.

Answer_____ dollars

8. Print Shop. A shop charges $c = 3n + 20$ dollars for n posters.

a. Find the cost of 15 posters. _____ dollars

b. Find the cost of 30 posters. _____ dollars

c. Explain why doubling the posters does not double the cost.

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Omar's Work. A tap fills 6 buckets each minute. Omar wrote $b = 6m$. Then he said 30 minutes would fill 36 buckets. Explain his mistake and find the correct number.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. For $y = 6x$, find y when $x = 8$.

A 14 **B** 48 **C** 68 **D** 86

11. In an equation with a fee, like $c = 3n + 10$, you —

A add the fee first, then multiply

B multiply first, then add the fee

C multiply the fee by n

D skip the fee

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

84 Z	60 W	59 J	234 Q	40 X	110 R	216 A	450 S	109 E	384 N

#2b	#3	#4	#6	#7	#8b

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