Name_____ Date_____ Period_____

LESSON 2-8 · SESSION 2 · PRACTICE · FORM A

Reaching a Target Mean

Learning target – I can find the value a data set still needs in order to reach a target mean. · 6.SP.B.5c

REMEMBER

- **Target total = target mean × number of values.** Count the missing value too.
- **Missing value = target total − sum so far.**
- If the missing value is more than the top score allowed, the goal is **not possible**.

WORKED EXAMPLE

Quiz scores are 6, 7 and 9. What fourth score gives a mean of 8?

Step 1 Count all scores, with the missing one: 4.

Step 2 Target total: 8 × 4 = 32. Sum so far: 6 + 7 + 9 = 22.

Step 3 32 − 22 = 10. Check: 6 + 7 + 9 + 10 = 32 and 32 ÷ 4 = 8.

Answer **The fourth score is 10.**

WORDS **target mean** *(media objetivo)* · **target total** *(total objetivo)* · **missing value** *(valor faltante)*

PRACTICE

show your work · label units

1. Fill in each blank.

a. Mean 20, 4 values. Total = ____

b. Mean 8, 7 values. Total = ____

c. Need 72, have 57. Missing = ____

d. Need 120, have 96. Missing = ____

2. **Swim Meet.** A swimmer scored 27, 31, 24 and 30 points in four meets. She wants a mean of 29 points over five meets.

a. Target total: ____

b. Sum so far: ____

c. Meet five: ____

3. **Bowling Goal.** Ravi bowled 96, 104, 88 and 112. What score in game 5 gives a mean of 102?

Hint *Turn the target mean into a target total first.*

Show your work.

Score_____

4. **Missing Number.** Five numbers have a mean of 22. Four of them are 19, 25, 21 and 28. Find the fifth number.

Show your work.

Number_____

5. One Perfect Quiz. Dana's four quiz scores have a mean of 70. She says a 100 on quiz 5 makes her mean 100. Find her real new mean.

Hint *Rebuild the total, then share it across 5 quizzes.*

Show your work.

New mean_____

6. Working Backward. Six temperatures have a mean of 45°F. Five of them are 41, 39, 50, 47 and 44°F. Find the sixth temperature.

Hint *Multiply by 6, the count that includes the missing value.*

Show your work.

Answer_____ °F

7. Impossible Target. Elias scored 70, 74 and 78 on three tests (top score 100). What score does he need for a mean of 90 over four tests? Is it possible?

Hint *Compare the score needed with 100, the top score.*

Show your work.

Score needed_____

8. Two Targets. Three deliveries weighed 14, 20 and 17 kg. What must a fourth delivery weigh for each mean?

a. Mean of 18 kg: _____ kg

b. Mean of 20 kg: _____ kg

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Gideon's Work. Gideon has a total of 104 points after four games. He wants a mean of 30 over five games, so he wrote 104 − 30 = 74. Explain his mistake and find the score he needs.

_____

_____

TEST PRACTICE

choose the best answer

10. Four values have a mean of 20. Their total is —

A 5 **B** 24 **C** 80 **D** 16

11. Three scores total 51. What fourth score gives a mean of 15?

A 9 **B** 15 **C** 66 **D** 36

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

100	76	33	110	74	222	21	49	17	138
Q	G	T	A	Z	X	S	E	R	T

#2c	#3	#4	#5	#6	#7	#8a

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