Name_____ Date_____ Period_____

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

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 15, 6 values. Total = ____

b. Mean 9, 8 values. Total = ____

c. Need 84, have 66. Missing = ____

d. Need 130, have 102. Missing = ____

2. **Diving Contest.** A diver scored 26, 33, 28 and 31 points in four contests. He wants a mean of 30 points over five contests.

a. Target total: ____ **b.** Sum so far: ____ **c.** Contest five: ____

3. **Bowling Goal.** Rosa bowled 98, 106, 90 and 110. What score in game 5 gives a mean of 104?

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

Show your work.

Score_____

4. **Missing Number.** Five numbers have a mean of 24. Four of them are 20, 27, 22 and 29. Find the fifth number.

Show your work.

Number_____

5. One Perfect Quiz. Marco's four quizzes have a mean of 75. He says a 100 on quiz 5 will make his mean 100. Find his 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 52°F. Five of them are 48, 55, 50, 57 and 51°F. Find the sixth temperature.

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

Show your work.

Answer_____ °F

7. Impossible Target. Lucía scored 72, 76 and 80 on three tests (top score 100). What score does she need for a mean of 92 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 15, 22 and 17 kg. What must a fourth delivery weigh for each mean?

a. Mean of 20 kg: _____ kg

b. Mean of 22 kg: _____ kg

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Talia's Work. Talia has a total of 112 points after four games. She wants a mean of 32 over five games, so she wrote 112 − 32 = 80. Explain her mistake and find the score she needs.

_____

_____

TEST PRACTICE

choose the best answer

10. Five values total 200. Their mean is –

A 1,000 **B** 40 **C** 195 **D** 50

11. To reach a target mean, first find the –

A target total **B** median **C** greatest value **D** range

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

51	26	116	22	100	228	104	140	80	32
I	G	I	S	Q	X	Z	N	S	M

#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 #___