LESSON MAKER PRO

Does It Make Sense?

Estimate first, then check the answer.

GRADE 3 · 3.AT.A.2.b

3.AT.A.2.b "Assess the reasonableness of answers in terms of context, using mental computation and estimation strategies including, rounding, front-end estimation, and benchmark numbers."

NAME _____ DATE _____

ESTIMATE TO CHECK

An answer is reasonable if it is close to what you expect. You can round numbers, add the hundreds and tens first, or use a number you know well to estimate. An answer can be reasonable without being exactly correct.

WORKED EXAMPLE

A student says 267 + 314 = 900. Is 900 reasonable? Round to the nearest ten to check.

1. Round 267 to 270 and 314 to 310.
2. Add: 270 + 310 = 580.
3. 900 is much greater than 580.

Answer: No. 900 is not reasonable. The exact sum is 581.

PRACTICE 6 problems

1 A student says 438 + 151 = 589. Round to the nearest ten. Is 589 reasonable? Write your estimate.

ANSWER _____

2 A student says 683 - 228 = 255. Round to the nearest hundred. Is 255 reasonable? Write your estimate.

ANSWER _____

3 A student says 346 + 421 = 967. Add the hundreds and tens first. Is 967 reasonable? Write your estimate.

ANSWER _____

4 A student says 256 + 312 = 568. Add the hundreds and tens first. Is 568 reasonable? Write your estimate.

ANSWER _____

5 A student says 9 x 6 = 54. Use 10 x 6 = 60 to check. Is 54 reasonable? Explain.

ANSWER _____

6 A student says 54 / 6 = 12. Use 60 / 6 = 10 to check. Is 12 reasonable? Explain.

ANSWER _____

APPLY IT Show your work

1 At a game booth, 24 players each win 3 tickets. A helper says the booth needs 92 tickets. Use 25 players as a benchmark. Is 92 reasonable? How many tickets does the booth need exactly?

WORK SPACE

ANSWER _____

2 A school collected 378 cans on Monday and 214 cans on Tuesday. A sign says the school collected 602 cans in all. Round to the nearest hundred. Is 602 reasonable? What is the exact total?

WORK SPACE

ANSWER _____

CHALLENGE One step up

At a school fair, 6 teams each earn 8 tickets. They spend 19 tickets on a prize. A student says they have 67 tickets left. Use 6 x 10 = 60 as a benchmark to decide if 67 is reasonable. Then find the exact number of tickets left and explain your check.

WORK SPACE AND ANSWER

ANSWER KEY

Does It Make Sense?

GRADE 3 · 3.AT.A.2.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A student says 438 + 151 = 589. Round to the nearest ten. Is 589 reasonable? Write your estimate.	**Yes. 440 + 150 = 590, which is close to 589.**
2	A student says 683 - 228 = 255. Round to the nearest hundred. Is 255 reasonable? Write your estimate.	**No. 700 - 200 = 500, which is far from 255.**
3	A student says 346 + 421 = 967. Add the hundreds and tens first. Is 967 reasonable? Write your estimate.	**No. 340 + 420 = 760, which is far from 967.**
4	A student says 256 + 312 = 568. Add the hundreds and tens first. Is 568 reasonable? Write your estimate.	**Yes. 250 + 310 = 560, which is close to 568.**
5	A student says 9 x 6 = 54. Use 10 x 6 = 60 to check. Is 54 reasonable? Explain.	**Yes. Nine groups of 6 have 6 fewer than ten groups of 6, so 60 - 6 = 54.**
6	A student says 54 / 6 = 12. Use 60 / 6 = 10 to check. Is 12 reasonable? Explain.	**No. Since 54 is less than 60, 54 / 6 must be less than 10, not 12.**

PART 2 · APPLY IT

1. **No. The booth needs 72 tickets.** For 25 players, the booth would need 25 x 3 = 75 tickets, so 92 is too high. For 24 players, it needs 24 x 3 = 72 tickets.
2. **Yes, 602 is reasonable, but it is not exact. The exact total is 592 cans.** Rounding gives 400 + 200 = 600, so 602 is a reasonable answer. Adding the actual numbers gives 378 + 214 = 592.

CHALLENGE

No. The teams earned fewer than 60 tickets, so they cannot have 67 left after spending some. They earned 6 x 8 = 48 tickets and have 48 - 19 = 29 tickets left.

Accept other sound estimates and explanations that support the same judgment. A reasonable answer may differ from the exact answer, as in the second word problem.