LESSON MAKER PRO

Number Trail Mission

Estimate, solve, and check large-number problems.

GRADE 4 · 4.CE.1.d

4.CE.1.d "Estimate, represent, solve, and justify solutions to single-step and multistep contextual problems involving addition and subtraction with whole numbers where addends and minuends do not exceed 1,000,000."

NAME _____ DATE _____

PLAN, THEN SOLVE

First, round each number to the same place value to make a quick estimate. Then write an equation and solve carefully. Compare your exact answer to your estimate to see whether it makes sense.

WORKED EXAMPLE

Estimate and solve: 743,218 - 281,465

1. Round 743,218 to 700,000 and 281,465 to 300,000.
2. Estimate: 700,000 - 300,000 = 400,000.
3. Subtract exactly: 743,218 - 281,465 = 461,753.

Answer: Estimate: 400,000. Exact answer: 461,753.

PRACTICE 6 problems

1 Round each number to the nearest hundred thousand. Estimate, then solve: 347,218 + 236,574

ANSWER _____

2 Round each number to the nearest hundred thousand. Estimate, then solve: 805,630 - 278,456

ANSWER _____

3 Round each number to the nearest hundred thousand. Estimate, then solve: 620,000 - 184,275

ANSWER _____

4 Round each number to the nearest hundred thousand. Estimate, then solve: 156,890 + 409,760 + 82,345

ANSWER _____

5 A stadium recorded 712,480 visitors last year. This year, it recorded 356,725 visitors. Write an equation, estimate to the nearest hundred thousand, and find how many fewer visitors came this year.

ANSWER _____

6 Round each number to the nearest hundred thousand. Estimate, then solve: 920,000 - 138,245 - 276,890

ANSWER _____

APPLY IT Show your work

1 In a game design challenge, Maya's team earned 735,420 points. The team used 248,960 points to unlock a new level and 186,735 points to add special features. Estimate to the nearest hundred thousand, then find how many points remain.

WORK SPACE

ANSWER _____

2 The school science club collected 184,560 digital tokens during its first drive and 97,845 more during its second drive. The club sent 128,790 tokens to a recycling project. Estimate to the nearest hundred thousand, then find how many tokens the club has left.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A library system has 900,000 reading badges. It gives 287,650 badges to schools in the fall and 319,875 badges in the spring. Ari says fewer than 300,000 badges remain. Is Ari correct? Use an estimate and an exact calculation to justify your answer.

WORK SPACE AND ANSWER

ANSWER KEY

Number Trail Mission

GRADE 4 · 4.CE.1.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Round each number to the nearest hundred thousand. Estimate, then solve: 347,218 + 236,574	**Estimate: 500,000. Exact answer: 583,792.**
2	Round each number to the nearest hundred thousand. Estimate, then solve: 805,630 - 278,456	**Estimate: 500,000. Exact answer: 527,174.**
3	Round each number to the nearest hundred thousand. Estimate, then solve: 620,000 - 184,275	**Estimate: 400,000. Exact answer: 435,725.**
4	Round each number to the nearest hundred thousand. Estimate, then solve: 156,890 + 409,760 + 82,345	**Estimate: 700,000. Exact answer: 648,995.**
5	A stadium recorded 712,480 visitors last year. This year, it recorded 356,725 visitors. Write an equation, estimate to the nearest hundred thousand, and find how many fewer visitors came this year.	**Equation: 712,480 - 356,725 = ___. Estimate: 300,000. Exact answer: 355,755 fewer visitors.**
6	Round each number to the nearest hundred thousand. Estimate, then solve: 920,000 - 138,245 - 276,890	**Estimate: 500,000. Exact answer: 504,865.**

PART 2 · APPLY IT

1. **Estimate: 300,000 points. Exact answer: 299,725 points remain.** Use 735,420 - 248,960 - 186,735. For the estimate, use 700,000 - 200,000 - 200,000 = 300,000.
2. **Estimate: 200,000 tokens. Exact answer: 153,615 tokens remain.** Add the tokens collected, then subtract the tokens sent: 184,560 + 97,845 - 128,790 = 153,615. The estimate is 200,000 + 100,000 - 100,000 = 200,000.

CHALLENGE

Yes. Estimate: 900,000 - 300,000 - 300,000 = 300,000. Exact calculation: 900,000 - 287,650 - 319,875 = 292,475, which is fewer than 300,000.

Accept estimates that use the nearest hundred thousand as directed. For Problem 5, accept an equivalent subtraction equation with 355,755 as the result.