LESSON MAKER PRO

# Precision Power

*Estimate, calculate, label, and check each answer.*

**GRADE 6 · 6.MP.6**

**6.MP.6** "Attend to precision."

NAME _____ DATE _____

## PRECISE MATH MOVES

First, decide what the question asks and choose an operation. Estimate before you calculate, then use your estimate to check whether your exact answer makes sense. Write the answer with the correct unit.

## WORKED EXAMPLE

A pet shelter puts 56 cans of food into 8 equal bins. Estimate, calculate, and label the number of cans in each bin.

1. Estimate: 56 divided by 8 is about 7.
2. Calculate: 56 / 8 = 7.
3. Check: 7 cans per bin x 8 bins = 56 cans.

**Answer: 7 cans per bin**

## PRACTICE 6 problems

**1** A reader finishes 144 pages in 4 equal reading sessions. Estimate first, then calculate the number of pages in each session. Use your estimate to check.

**ANSWER** _____

**2** A smoothie recipe uses 2/3 cup of yogurt for each batch. A student makes 5 batches. Estimate first, then calculate the exact amount of yogurt needed. Use your estimate to check.

**ANSWER** _____

**3** A runner logs 1.25 kilometers on Monday and 2.6 kilometers on Tuesday. Estimate first, then find the total distance. Use your estimate to check.

**ANSWER** _____

**4** A student has $19.00 for a music download. The download costs $4.35. Estimate first, then calculate the money left. Use your estimate to check.

**ANSWER** _____

**5** A 15.6-minute video is split into 4 equal clips. Estimate first, then calculate the length of each clip. Use your estimate to check.

**ANSWER** _____

**6** A game club buys 24 card sleeves at $1.25 each. Estimate first, then calculate the total cost. Use your estimate to check.

**ANSWER** _____

## APPLY IT Show your work

**1** At a school esports event, 15 students buy smoothies for $2.40 each, and 9 students buy fruit cups for $1.60 each. Estimate the total sales first. Then calculate the exact total amount earned.

WORK SPACE

**ANSWER** _____

**2** For a bike club service project, students pack 3.5 pounds of trail mix into bags that each hold 0.25 pound. Estimate the number of bags first. Then calculate the exact number of full bags.

WORK SPACE

**ANSWER** _____

## CHALLENGE One step up

Mina has $26.00. She buys 4 game add-ons that cost $3.25 each and says she has $14.00 left. Use an estimate with $3.50 to check her claim. Then calculate the exact amount left and explain Mina's error.

WORK SPACE AND ANSWER

# Precision Power



## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | A reader finishes 144 pages in 4 equal reading sessions. Estimate first, then calculate the number of pages in each session. Use your estimate to check. | **Estimate: about 40 pages. Exact: 36 pages per session.** |
| 2 | A smoothie recipe uses 2/3 cup of yogurt for each batch. A student makes 5 batches. Estimate first, then calculate the exact amount of yogurt needed. Use your estimate to check. | **Estimate: about 3 cups. Exact: 3 1/3 cups of yogurt.** |
| 3 | A runner logs 1.25 kilometers on Monday and 2.6 kilometers on Tuesday. Estimate first, then find the total distance. Use your estimate to check. | **Estimate: about 4 kilometers. Exact: 3.85 kilometers.** |
| 4 | A student has $19.00 for a music download. The download costs $4.35. Estimate first, then calculate the money left. Use your estimate to check. | **Estimate: about $15. Exact: $14.65.** |
| 5 | A 15.6-minute video is split into 4 equal clips. Estimate first, then calculate the length of each clip. Use your estimate to check. | **Estimate: about 4 minutes. Exact: 3.9 minutes per clip.** |
| 6 | A game club buys 24 card sleeves at $1.25 each. Estimate first, then calculate the total cost. Use your estimate to check. | **Estimate: about $30. Exact: $30.00.** |

## PART 2 · APPLY IT

1. **Estimate: about $50. Exact: $50.40.** Estimate first: 15 x $2.40 = about $36, and 9 x $1.60 = about $14, for about $50. Calculate exactly: $36.00 + $14.40 = $50.40.
2. **Estimate: about 16 bags. Exact: 14 bags.** Estimate first: 3.5 pounds is close to 4 pounds, and 4 / 0.25 = 16 bags. Calculate exactly: 3.5 / 0.25 = 14 bags.

## CHALLENGE

**Estimate: 4 x $3.50 = about $14 spent, so about $12 left. Exact: 4 x $3.25 = $13.00, and $26.00 - $13.00 = $13.00 left. Mina likely multiplied $3.25 by 4 incorrectly.**

Accept reasonable estimates that support a check. Accept 10/3 cups as equivalent to 3 1/3 cups, and require correct units and money written to the nearest cent.