

Smart Tool Choices

Choose a math tool that fits the situation.

GRADE 5 • 5.MP.5

5.MP.5 "Use appropriate tools strategically."

NAME _____

DATE _____

CHOOSE, SOLVE, CHECK

Before you solve, think about which tool will help most. You might use an estimate, multiplication, division, a number line, or a table. Check whether your answer makes sense by estimating or using the opposite operation.

WORKED EXAMPLE

A museum shop puts 18 postcards into each of 6 display trays. How many postcards are on the trays?

1. Choose multiplication because there are equal groups.
2. Estimate: $20 \times 6 = 120$, so the answer should be close to 120.
3. Calculate: $18 \times 6 = 108$.
4. Check: 108 is close to 120.

Answer: 108 postcards

PRACTICE 6 problems

- 1** A classroom library has 4 carts with 25 books on each cart. Which tool would help most, and how many books are there?

ANSWER _____

- 2** Jordan uses $\frac{2}{5}$ of 35 stickers to decorate a poster. Which tool would help most, and how many stickers does Jordan use?

ANSWER _____

- 3** Drama rehearsal begins at 9:35 and ends at 11:10. Which tool would help most, and how long is rehearsal?

ANSWER _____

- 4** The art club sorts 156 photos into pages with 12 photos on each page. Which tool would help most, and how many pages are needed?

ANSWER _____

- 5** Five notebooks cost \$2.40 each at the school store. Estimate first, then find the exact cost. What is the cost?

ANSWER _____

- 6** In an online game, Ava earns 14 points in each of 7 rounds. Ben earns 19 points in each of 5 rounds. Which player earns more points, and by how many?

ANSWER _____

APPLY IT Show your work

- 1** For a field day, 128 students each need one juice box. Juice boxes come in packs of 8, and each pack costs \$5. Choose tools to find how many packs are needed and the total cost.

WORK SPACE

ANSWER _____

- 2** Darius has 125 coins in an online game. A new character costs 28 coins. Choose a tool to find the greatest number of characters Darius can buy and how many coins will be left.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Mia has \$30 to spend at a comic fair. She wants 4 comic books that cost \$4.75 each and a poster that costs \$7. Does Mia have enough money? Explain how an estimate and an exact calculation support your answer.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A classroom library has 4 carts with 25 books on each cart. Which tool would help most, and how many books are there?	Use multiplication. There are 100 books.
2	Jordan uses $\frac{2}{5}$ of 35 stickers to decorate a poster. Which tool would help most, and how many stickers does Jordan use?	Use multiplication or division. Jordan uses 14 stickers.
3	Drama rehearsal begins at 9:35 and ends at 11:10. Which tool would help most, and how long is rehearsal?	Use a number line or count forward in time. Rehearsal lasts 1 hour 35 minutes.
4	The art club sorts 156 photos into pages with 12 photos on each page. Which tool would help most, and how many pages are needed?	Use division. The club needs 13 pages.
5	Five notebooks cost \$2.40 each at the school store. Estimate first, then find the exact cost. What is the cost?	An estimate is about \$10. The exact cost is \$12.00.
6	In an online game, Ava earns 14 points in each of 7 rounds. Ben earns 19 points in each of 5 rounds. Which player earns more points, and by how many?	Use multiplication. Ava earns more points by 3 points.

PART 2 • APPLY IT

- 16 packs are needed, and the total cost is \$80.** Divide 128 by 8 to find 16 packs. Multiply 16 by \$5 to find the cost.
- Darius can buy 4 characters and will have 13 coins left.** Use division or repeated multiplication. Since $4 \times 28 = 112$ and $5 \times 28 = 140$, Darius can buy 4 characters and has $125 - 112 = 13$ coins left.

CHALLENGE

Yes, Mia has \$4.00 left. An estimate is $4 \times \$5 + \$7 =$ about \$27, and the exact cost is \$26.00.

Accept any reasonable tool choice when the student explains why it fits and reaches the correct result. For estimates, accept nearby sensible estimates that support the exact answer.