

Pick Your Method

Choose a smart way to solve each problem.

GRADE 6 • TEKS 6.1.C

6.1.C "select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;"

NAME _____

DATE _____

MATCH THE METHOD

First decide whether you need an exact answer or a close answer. Use mental math for friendly numbers and adjustments, estimation to check the size of an answer, and paper and pencil when written steps make the calculation clearer.

WORKED EXAMPLE

Find $246 + 199$. Choose a technique.

1. Use mental math because 199 is close to 200.
2. $246 + 200 = 446$.
3. $446 - 1 = 445$.

Answer: Mental math; 445

PRACTICE 6 problems

- 1** Which technique is best, mental math, estimation, or paper and pencil? Solve: $399 + 126$.

ANSWER _____

- 2** Round each number to the nearest whole number, then estimate: $48.7 + 21.2$.

ANSWER _____

- 3** Which technique is most useful for finding an exact answer? Solve: $5/6 + 3/4$.

ANSWER _____

- 4** Choose a technique and solve: 18×25 .

ANSWER _____

- 5** Choose a technique and solve: $63.4 - 19.8$.

ANSWER _____

- 6** Choose a technique and solve: $144 \div 12$.

ANSWER _____

APPLY IT Show your work

- 1** Rina has \$40.00 to spend at a school concert. She buys a ticket for \$12.75 and a snack bundle for \$8.50. Which technique is most useful for finding the exact amount she has left? How much money is left?

WORK SPACE

ANSWER _____

- 2** Malik's tablet has 12 GB of free space. Three game updates use 2.75 GB, 1.60 GB, and 3.25 GB. Which technique is most useful for finding the exact free space left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A music app offers Plan A for \$27.60 for 4 months. Plan B costs \$7.25 each month. Which plan costs less for 4 months, and how much money does it save? Use a quick estimate and then an exact calculation.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Which technique is best, mental math, estimation, or paper and pencil? Solve: $399 + 126$.	Mental math; 525
2	Round each number to the nearest whole number, then estimate: $48.7 + 21.2$.	70
3	Which technique is most useful for finding an exact answer? Solve: $5/6 + 3/4$.	Paper and pencil; 19/12
4	Choose a technique and solve: 18×25 .	Mental math; 450
5	Choose a technique and solve: $63.4 - 19.8$.	Mental math; 43.6
6	Choose a technique and solve: $144 \div 12$.	Mental math; 12

PART 2 • APPLY IT

1. **Paper and pencil; \$18.75** Add the costs: $\$12.75 + \$8.50 = \$21.25$. Subtract from $\$40.00$ to get $\$18.75$.
2. **Paper and pencil; 4.40 GB** Add the update sizes: $2.75 + 1.60 + 3.25 = 7.60$ GB. Then subtract: $12.00 - 7.60 = 4.40$ GB.

CHALLENGE

Plan A; it saves \$1.40. A reasonable estimate is that Plan A is about \$28 and Plan B is about \$30. Exactly, Plan B costs $4 \times \$7.25 = \29.00 , and $\$29.00 - \$27.60 = \$1.40$.

Accept any reasonable tool choice when the student explains it and computes correctly. For problem 3, accept 19/12 or $1 \frac{7}{12}$.