

Smart Math Choices

Pick a method that fits each problem.

GRADE 5 • TEKS 5.1.C

5.1.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 _____

PART 1: CHOOSE A METHOD

Choose a method that fits the numbers and the question. Use mental math when numbers make friendly groups, estimate when you need a close answer, and use paper and pencil when you must keep track of several steps. A model, such as fraction strips, can show parts of a whole, and technology can help organize a large set of data when it is allowed.

WORKED EXAMPLE

Choose a technique to find $398 + 205$.

1. 398 is 2 less than 400.
2. Add $400 + 205 = 605$.
3. Subtract 2: $605 - 2 = 603$.

Answer: Mental math; 603

PRACTICE 6 problems

- 1** Choose a mental math strategy. Find $39 + 61$.

ANSWER _____

- 2** Round each addend to the nearest hundred. Estimate $487 + 214$.

ANSWER _____

- 3** Choose the most useful method, then solve: $3,746 - 1,589$.

ANSWER _____

- 4** Use mental math to find 24×15 .

ANSWER _____

- 5** Use compatible numbers to estimate $1,982 \div 39$.

ANSWER _____

- 6** A student wants to model $\frac{3}{4} + \frac{1}{8}$. Which tool would be useful? Then find the sum.

ANSWER _____

APPLY IT Show your work

- 1** Part 2: Apply. A gaming club charges \$17 for each weekly meeting. There are 8 meetings. Which technique is efficient for finding the total cost? What is the total cost?

WORK SPACE

ANSWER _____

- 2** A class has \$600 for museum tickets. Each of 26 tickets costs \$19. Which technique is efficient for finding the exact total? How much will the tickets cost, and how much money will be left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Part 3: Challenge. A robotics club has 36 teams. Each team needs 27 batteries. Which estimate is closer to the exact number of batteries, 900 or 1,000? Use a quick estimate, then find the exact product and explain your reasoning.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Choose a mental math strategy. Find $39 + 61$.	Mental math; 100
2	Round each addend to the nearest hundred. Estimate $487 + 214$.	700
3	Choose the most useful method, then solve: $3,746 - 1,589$.	Paper and pencil; 2,157
4	Use mental math to find 24×15 .	360
5	Use compatible numbers to estimate $1,982 \div 39$.	50
6	A student wants to model $\frac{3}{4} + \frac{1}{8}$. Which tool would be useful? Then find the sum.	Fraction strips or fraction bars; $\frac{7}{8}$

PART 2 • APPLY IT

- Mental math; \$136** Break 17 into 10 and 7. Multiply each part by 8, then add $80 + 56$.
- Mental math; \$494 total and \$106 left** Find 26×19 as 26×20 minus 26, which is $520 - 26 = 494$. Subtract 494 from 600.

CHALLENGE

1,000 is closer. Rounding gives $40 \times 30 = 1,200$, so 1,000 is the closer estimate. The exact product is $36 \times 27 = 972$. It is 28 away from 1,000 and 72 away from 900.

Accept any clearly stated efficient method that gives the correct exact answer on items asking for a method. For the estimation items, accept 700 and 50 when students use the directed rounding or compatible-number strategy.