



TEST TALK



## Think It Through

For multiple-choice items, first **eliminate any unreasonable answers.**

## MULTIPLE CHOICE

- Use mental math to find the quotient of  $6,300 \div 90$ . (4-1)  
 A. 7      **B. 70**      C. 700      D. 7,000
- Which is the best estimate of  $812 \div 39$ ? (4-2)  
 A. 2      **B. 20**      C. 200      D. 2000

## FREE RESPONSE

Find each quotient. Use mental math. (4-1)

- |                     |                     |                      |
|---------------------|---------------------|----------------------|
| 3. $1,200 \div 30$  | 4. $9,000 \div 30$  | 5. $24,000 \div 600$ |
| <b>40</b>           | <b>300</b>          | <b>40</b>            |
| 6. $3,600 \div 300$ | 7. $16,000 \div 40$ | 8. $72,000 \div 90$  |
| <b>12</b>           | <b>400</b>          | <b>800</b>           |

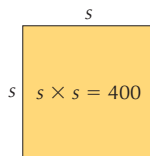
Estimate each quotient. (4-2)

**Sample answers are given.**

- |                   |                       |                     |
|-------------------|-----------------------|---------------------|
| 9. $492 \div 52$  | 10. $\$78.17 \div 21$ | 11. $989 \div 521$  |
| <b>10</b>         | <b>\$4</b>            | <b>2</b>            |
| 12. $388 \div 22$ | 13. $\$94.93 \div 11$ | 14. $5,378 \div 57$ |
| <b>20</b>         | <b>\$10</b>           | <b>90</b>           |

Solve. Write your answer in a sentence. (4-3)

- The family decides to put a fence around a square garden that has an area of 400 square feet. How much fencing will we need to enclose this garden on all four sides? (Hint: the area of a square with sides of length  $s$  is  $s \times s$ .) **80 feet of fencing is needed to enclose this garden.**
- Our high school's football team is going to the state championship tournament. 788 people signed up to take school buses to the tournament. If each bus can carry 42 people comfortably, how many buses are needed to take everyone to the tournament? **19 buses are needed to take everyone to the tournament.**



## Writing in Math

- Without dividing, how can you tell the number of zeros in the quotient of  $6,300 \div 70$ ? (4-1) **Sample answer:  $6,300 \div 70$  is the same as  $630 \text{ tens} \div 7 \text{ tens} = 630 \div 7$ , which has 1 zero in the quotient.**
- Explain why using  $800 \div 20$  gives an overestimate to the quotient of  $782 \div 21$ ? (4-2) **Sample answer: the estimate uses a larger dividend divided by a smaller divisor, so it will be greater than the actual quotient.**
- Explain how you would find the length of a rectangle that has an area of 6,000 square ft if you know that its width is 30 ft. (Hint: the area of a rectangle = length  $\times$  width.) (4-3) **Sample answer: Thinking about 30 times what number is 6,000, try 20 as the length. Checking,  $30 \times 20 = 600$ , not 6,000. Revise and try 200. Checking,  $30 \times 200 = 6,000$ , so the length is 200 feet.**