

Multiply With Meaning

Model, estimate, and solve multiplication stories.

GRADE 4 • TEKS 4.4

4.4 "Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy..."

NAME _____

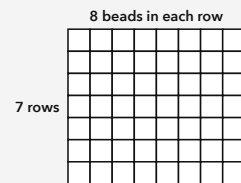
DATE _____

BREAK APART TO MULTIPLY

To multiply, break a factor into tens and ones. Multiply each part, add the partial products, then check that your answer is close to an estimate.

WORKED EXAMPLE

The bead tray is shown. How many beads are in it?



1. Count 7 rows with 8 beads in each row.
2. Write $7 \times 8 = 56$.
3. Check: $8 \times 7 = 56$.

Answer: 56 beads

PRACTICE 4 problems

- 1** A club buys 23 packs with 14 cards each. Estimate, solve, and check. How many cards are there?

ANSWER _____

- 2** A library prints 3,126 bookmarks for each of 2 fairs. Estimate, solve, and check. How many bookmarks are printed?

ANSWER _____

- 3** A game contest has 33 teams. Each team earns 21 points. Estimate, solve, and check. How many points are earned?

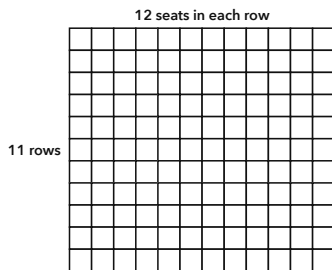
ANSWER _____

- 4** A theater sells 405 tickets each day for 3 days. Estimate, solve, and check. How many tickets are sold?

ANSWER _____

APPLY IT Show your work

- 1** The gaming club's seating array is shown. Write an equation, solve, and check by switching the factors. How many seats are there?



ANSWER _____

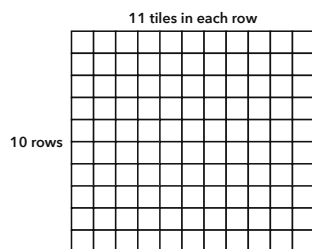
- 2** The school music club orders 24 boxes of 31 glow bracelets. It gives 125 bracelets away. Estimate, then find how many bracelets remain.

WORK SPACE

ANSWER _____

CHALLENGE One step up

The stage-floor array is shown. Four matching rows are added. How many tiles are on the larger floor? Explain with an equation.



WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A club buys 23 packs with 14 cards each. Estimate, solve, and check. How many cards are there?	About 300 cards; 322 cards
2	A library prints 3,126 bookmarks for each of 2 fairs. Estimate, solve, and check. How many bookmarks are printed?	About 6,000 bookmarks; 6,252 bookmarks
3	A game contest has 33 teams. Each team earns 21 points. Estimate, solve, and check. How many points are earned?	About 600 points; 693 points
4	A theater sells 405 tickets each day for 3 days. Estimate, solve, and check. How many tickets are sold?	About 1,200 tickets; 1,215 tickets

PART 2 • APPLY IT

1. $11 \times 12 = 132$ seats Multiply 11 by 12 to get 132. Check with 12×11 .
2. About 500 bracelets; 619 bracelets remain Multiply $24 \times 31 = 744$, then subtract 125. A compatible-number estimate is $20 \times 30 - 100 = 500$.

CHALLENGE

154 tiles; $(10 + 4) \times 11 = 14 \times 11 = 154$

Accept reasonable compatible-number estimates when the exact answer is correct. For the challenge, accept an equivalent equation that shows 14 rows of 11 tiles.