

Model Math Missions

Use models, equations, and number pairs to solve.

GRADE 3 • TEKS 3.5

3.5 "Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to: represent one- and two-step problems involving addition and subtraction of whole numbers..."

NAME _____

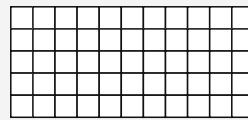
DATE _____

SEE THE RELATIONSHIP

Use a model to show equal groups, jumps, or parts of a total. Write an equation that matches the model, then check that your answer makes sense.

WORKED EXAMPLE

The array shows Maya's seed packets. How many packets does she have?

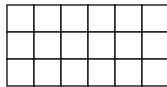


- Count 5 rows with 11 packets in each row.
- Write $5 \times 11 = 55$.
- Check: $55 \div 5 = 11$.

Answer: 55 packets

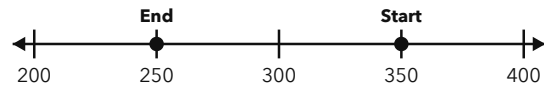
PRACTICE 4 problems

- 1** The array shows Kai's buttons. How many buttons are there?



ANSWER _____

- 2** A robot's score changed from Start to End on the number line. How many points did the score decrease?



ANSWER _____

- 3** Mila has 425 game coins. She earns 180 coins, then spends 95 coins. How many coins does she have now?

ANSWER _____

- 4** Eight equal teams share 64 juice boxes. How many juice boxes does each team get? Write $8 \times \underline{\quad} = 64$.

ANSWER _____

APPLY IT Show your work

- 1** A club cuts the ribbon shown into equal lengths for 6 gift bags. How long is each piece?

Ribbon

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48 inches

ANSWER _____

- 2** A library puts 9 comics on each of 4 display shelves. Then 13 comics are checked out. How many comics remain?

WORK SPACE

ANSWER _____

CHALLENGE One step up

At an arcade, each game costs \$3. Write the number pairs for 2, 4, and 8 games. Then describe the rule.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	The array shows Kai's buttons. How many buttons are there?	18 buttons
2	A robot's score changed from Start to End on the number line. How many points did the score decrease?	100 points
3	Mila has 425 game coins. She earns 180 coins, then spends 95 coins. How many coins does she have now?	510 coins
4	Eight equal teams share 64 juice boxes. How many juice boxes does each team get? Write $8 \times \underline{\quad} = 64$.	8; $8 \times 8 = 64$

PART 2 • APPLY IT

1. **8 inches** Divide the total ribbon length by the 6 equal pieces. $48 \div 6 = 8$.
2. **23 comics** Find the comics placed on shelves, $4 \times 9 = 36$. Then subtract 13, so $36 - 13 = 23$.

CHALLENGE

(2, 6), (4, 12), (8, 24); The cost is 3 times the number of games.

Accept equivalent equations that match each situation. For the challenge, accept a verbal rule such as "multiply the number of games by 3."