

Name _____

Write Numerical Expressions

I Can use a numerical expression to describe a situation.

Florida's B.E.S.T.

- Algebraic Reasoning 5.AR.2.1
- Mathematical Thinking & Reasoning MTR.4.1, MTR.6.1, MTR.7.1



UNLOCK the Problem Real World

A **numerical expression** is a mathematical phrase that has numbers and operation signs but does not have an equal sign.

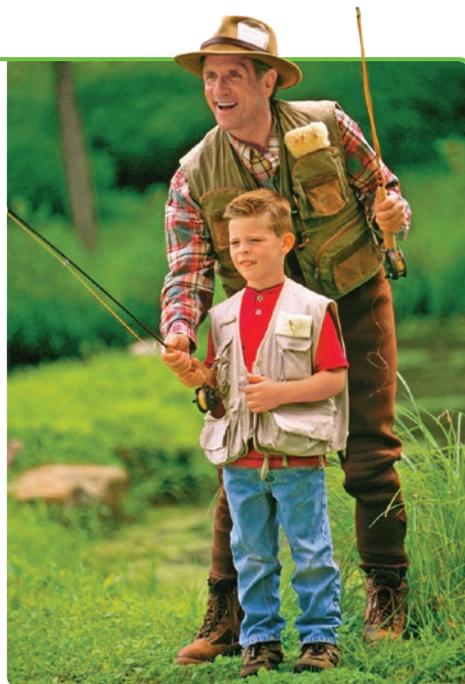
Tyler caught 15 small bass, and his dad caught 12 small bass in the Memorial Bass Tourney in Tidioute, PA. Write a numerical expression to represent how many fish they caught in all.

Choose which operation to use.

You need to join groups of different sizes, so use addition.

Tyler	plus	his dad
↓	↓	↓
15	+	12

So, $15 + 12$ represents how many fish they caught in all.



Example 1 Write an expression to match the words.

A Addition

Myleen mixes $\frac{1}{3}$ cup of olive oil and $\frac{1}{3}$ cup of vinegar to make dressing

olive oil	plus	vinegar
↓	↓	↓
$\frac{1}{3}$	+	$\frac{1}{3}$

B Subtraction

Lucia has 128 stamps. She uses 38 stamps on party invitations.

stamps	minus	stamps used
↓	↓	↓
128	-	_____

C Multiplication

Karla buys 5 books. Each book costs \$3.

books	times	cost per book
↓	↓	↓
_____	×	_____

D Division

Four friends share 5.2 pounds of carrots.

carrots	divided by	friends
↓	↓	↓
_____	÷	_____

Math Talk

MTR 7.1 Apply mathematics to real-world contexts.

What does the expression model in each example?

Expressions with Parentheses The meaning of the words in a problem will tell you where to place the parentheses in an expression.

Example 2 Which expression matches the meaning of the words?

Mauris went fishing for 3 days. Each day he put \$15 in his pocket. At the end of each day, he had \$5 left. How much money did Mauris spend by the end of the trip?

- Underline the events for each day.
- Circle the number of days these events happened.

Think: Each day he took \$15 and had \$5 left. He did this for 3 days.

$(\$15 - \$5)$ ← **Think:** What expression can you write to show how much money Mauris spends in one day?

$3 \times (\$15 - \$5)$ ← **Think:** What expression can you write to show how much money Mauris spends in three days?

Example 3 Which problem matches the expression $\$20 - (\$12 + \$3)$?

Kim has \$20 to spend for her fishing trip. She spends \$12 on a fishing pole. Then she finds \$3. How much money does Kim have now?

List the events in order.

First: Kim has \$20.

Next: _____.

Then: _____.

Do these words match the expression? _____

Kim has \$20 to spend for her fishing trip. She spends \$12 on a fishing pole and \$3 on bait. How much money does Kim have now?

List the events in order.

First: Kim has \$20.

Next: _____.

Then: _____.

Do these words match the expression? _____



MTR 6.1 Assess the reasonableness of solutions.

Explain how the expression of what Mauris spent in three days compares to the expression of what he spent in one day?

Share and Show



Circle the expression that matches the words.

1. Teri had 18 worms. She gave 4 worms to Jada and 3 worms to Dejuan.

$(18 - 4) + 3$

$18 - (4 + 3)$

2. Rick had \$188.60. He then worked 4 hours for \$15.75 each hour.

$\$188.60 + (4 \times \$15.75)$

$(\$188.60 + 4) \times \15.75