Unit 9, Lesson 12

Number Talk

Let's create our own Number Talks.

Warm-up

Number Talk: A Whole Number and a Fraction

Find the value of each expression mentally.

- $6 \times \frac{1}{4}$
- $6 \times \frac{3}{4}$
- $18 \times \frac{3}{4}$
- $180 \times \frac{3}{4}$

Activity 1

Related Numbers, Related Expressions

1. Here are 2 addition expressions. Think of at least 2 different ways to find the value of each sum mentally.

   a. $15 + 29$

   b. $30 + 58$

2. Here are 3 subtraction expressions. Think of at least 2 different ways to find the value of each difference mentally.

   a. $91 - 11$

   b. $91 - 16$

   c. $391 - 86$

3. Can you write a fourth subtraction expression that uses the same strategy you used to find the values of the other differences?

Activity 2

Add One New Expression, Then Two

1. Here are 3 division expressions. Find the value of each quotient mentally and think about how they might be related.
   - $35 \div 5$
   - $70 \div 5$
   - $210 \div 5$
   - _____

   Write a new division expression whose value can be found more easily after working through the first three expressions.

2. Here are 2 multiplication expressions. Analyze them and think about how they might be related.
   - 21×7
   - 42×7
   - _____
   - _____

   Write 2 new expressions. Explain your reasoning for each expression.

Activity 3

Add Three New Expressions

Here are 4 expressions you could use to start a Number Talk activity.

$75 + 30$ $\quad$ $160 - 51$ $\quad$ $24 \div 8$ $\quad$ $3 \times \frac{1}{6}$

1. Choose one starting expression. Think of at least 2 different ways to find its value mentally.

2. Write 3 expressions to create a Number Talk activity.

   _____ (starting expression)

   _____

   _____

   _____

3. Create an answer key for your Number Talk. Include at least one way to find the value of each expression mentally.