

Slide 1:

How do you think of and see the solution to a division problem such as  $8 \div 2$ ?

Slide 3:

How would you show/model the solution for  $8 \div 2$  using a number line?

Slide 5:

Let's re-call the parts of a division problem...

$$\begin{array}{ccc} & 8 \div 2 = 4 & \\ \nearrow & & \nwarrow \\ \text{Dividend} & \text{Divisor} & \text{Quotient} \end{array}$$

Can you relate each of the above parts to actions you performed on the number line?

Slide 7:

Can you extend the use of a number line to show/model the division of two integers  $(+8) \div (+2)$ ?

Slide 9:

Let's review your number line solution for the integer division problem  $(+8) \div (+2)$   
 $= +4$

How does each integer in your problem describe your movements on the number line?

Slide 11:

Can you describe your movement on a number line for the integer division problem  $(-8) \div (-2)$ ?

Slide 13:

Can you demonstrate your movement on a number line for the integer division problem  $(-8) \div (-2)$ ?

Slide 15:

Compare your number line solutions for  $(+8) \div (+2)$  and  $(-8) \div (-2)$ .

How are the solutions similar?

How are the solutions different?

Slide 17:

Can you describe your movement on a number line for the integer division problem  $(-8) \div (+2)$ ?

Slide 19:

Can you demonstrate your movement on a number line for the integer division problem  $(-8) \div (+2)$ ?

Slide 21:

Can you describe your movement on a number line for the integer division problem  $(+8) \div (-2)$ ?

Slide 23:

Can you demonstrate your movement on a number line for the integer division problem  $(+8) \div (-2)$ ?

Slide 25:

Compare your number line solutions for  $(-8) \div (+2)$  and  $(+8) \div (-2)$ .

How are the solutions similar?

How are the solutions different?

- I can describe how I *think of* and *see* the solution to a division problem
- I can model an integer division problem using a number line
- I can relate the terms dividend, divisor and quotient to actions/movement on a number line
- I can explain my solution path for solving integer division problems using a number line
- I can explain how I determine the integer sign on the quotient when solving using a number line