When Julianna went scuba diving in Cancun, she started at the surface and descended 10 feet every 2 minutes.

Write a mathematical expression to represent Julianna's depth after 30 minutes.

What integer represents Julianna's depth after 30 minutes?

Do Now: Please work silently on this Do Now. Thank you!

positive×positive

2×5

The expression 2×5 can be modeled as two groups of five.

Using your integer chips, show two rows of five on your table.

Multiplying Integers

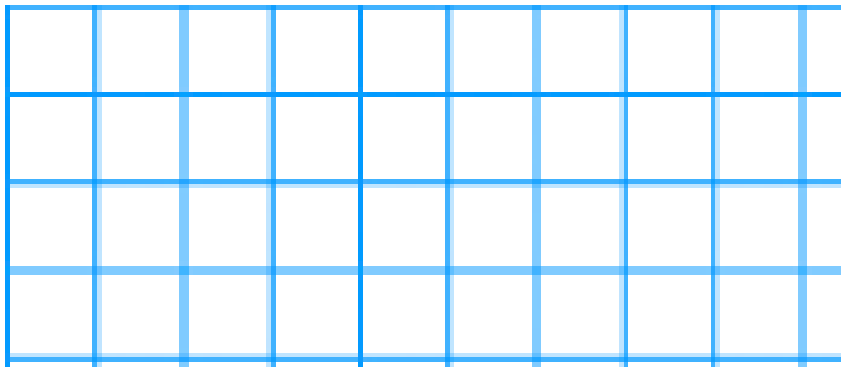
1.9

NOTES

Name:_____

Positive × Positive:

Model 2×5



$4 \times 3 =$

$3 \times 7 =$

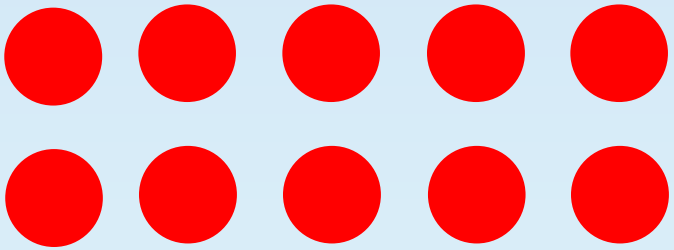
Positive × Positive =

positive × negative

$2 \times (-5)$

The expression $2 \times (-5)$ can be modeled as two groups of negative five (or two debts of five).

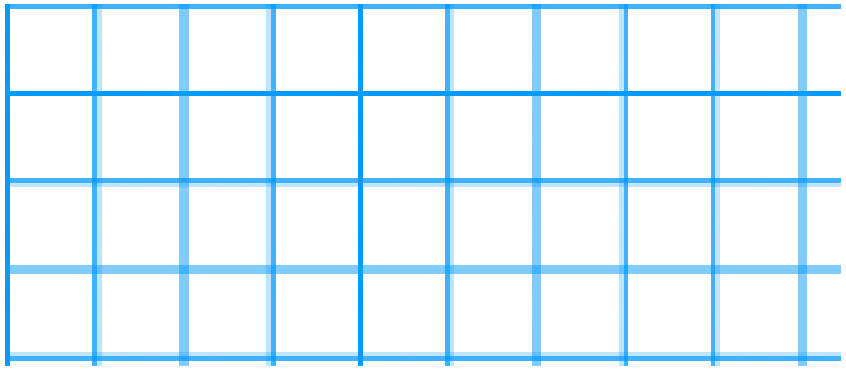
Using your integer chips, show two rows of negative five on your table.



Multiplying Integers

Positive × Negative:

Model $2 \times (-5)$



$6 \times (-4) =$

$8 \times (-2) =$

Positive × Negative =

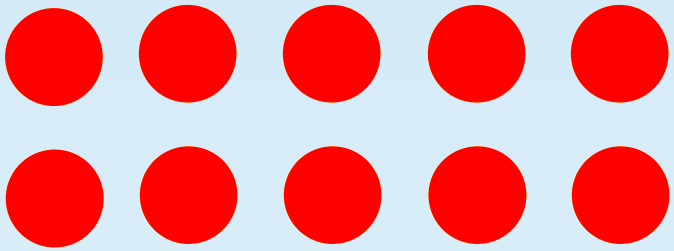
negative × positive

How can the commutative property also help us understand a problem like this one? Hmmmm?

-2×5

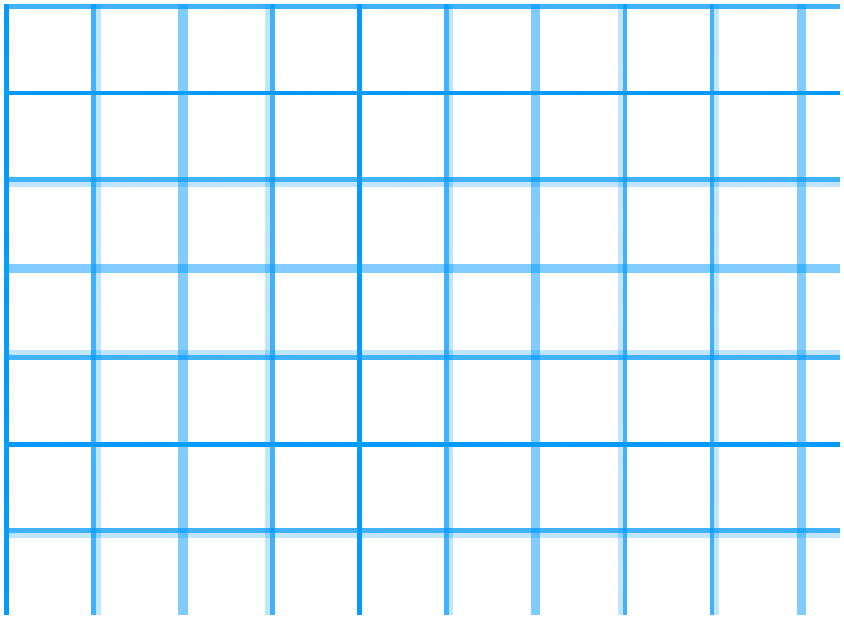
The expression -2×5 can be modeled as the opposite of two groups of five (or losing two groups of five).

Using your integer chips, show the opposite of two rows of five on your table.



Negative × Positive:

Model -2×5



$-9 \times 3 =$

$-4 \times 7 =$

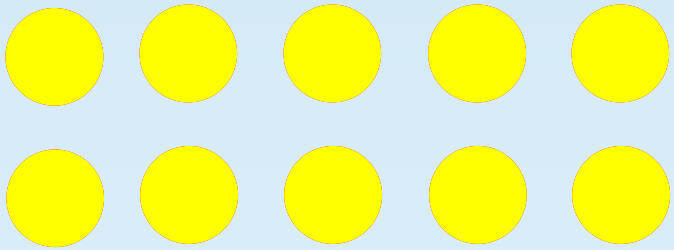
Negative × Positive =

negative × negative

$-2 \times (-5)$

The expression $-2 \times (-5)$ can be modeled as the opposite of two groups of negative five (or losing two debts of five).

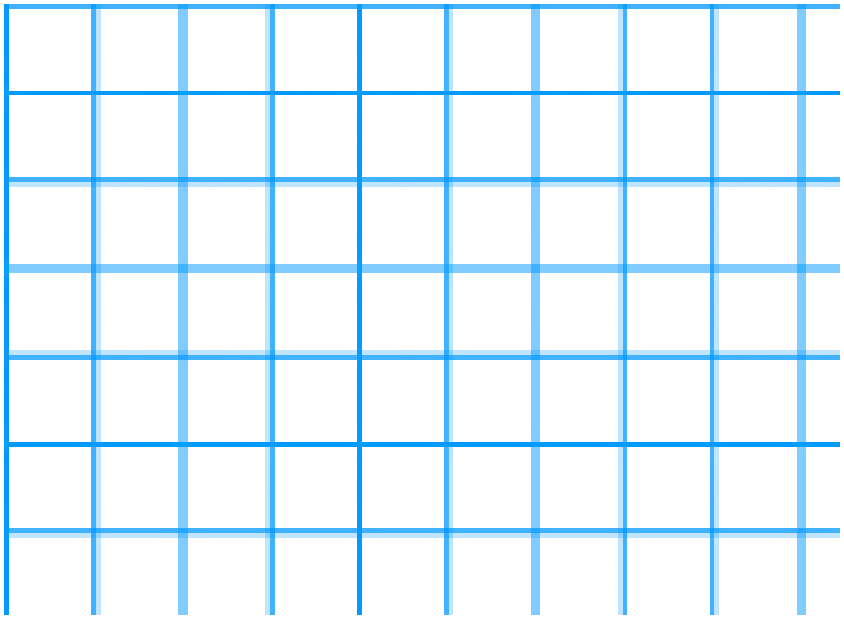
Using your integer chips, show the opposite of two debts of five on your table.



Multiplying Integers

Negative × Negative:

Model $-2 \times (-5)$



$-3 \times (-6) =$

$-11 \times (-7) =$

Negative × Negative =

positive ÷ positive

How can we use the definition of division, along with the rules we just learned for multiplying integers to confirm this?

$24 \div 2$

$36 \div 9$

Positive ÷ Positive =

Dividing Integers

positive ÷ negative

$16 \div (-4)$

$15 \div (-3)$

Positive ÷ Negative =

Dividing Integers

negative ÷ positive

-33 ÷ 3

-54 ÷ 18

Negative ÷ Positive =

Dividing Integers

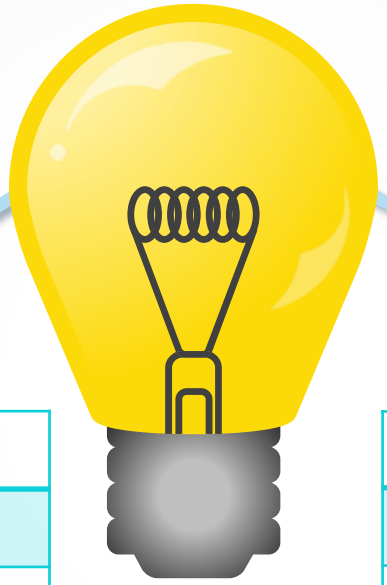
negative ÷ negative

$-25 \div (-5)$

$-21 \div (-7)$

Negative ÷ Negative =

Dividing Integers



positive	•	positive	=	
positive	•	negative	=	
negative	•	positive	=	
negative	•	negative	=	

positive	÷	positive	=	
positive	÷	negative	=	
negative	÷	positive	=	
negative	÷	negative	=	

Integer Multiplication and Division