

### Integer Operations

Integers are positive or negative whole numbers.

Add integers with the same sign by finding the sum. Keep the sign of the numbers.

	Number Line	Integer Operations
Addition Same Signs	$-6 + (-3) = \boxed{-9}$ 	$-4 + (-5) = \boxed{-9}$
	$8 + 2 = \boxed{10}$ 	$-2 + (-4) = \boxed{-6}$

1.  $-8 + (-7) = \boxed{-15}$

2.  $12 + 6 = \boxed{18}$

3.  $-9 + (-2) = \boxed{-11}$

Add integers with different signs by finding the difference. Keep the sign of the number with the greatest absolute value.

	Number Line	Integer Operations
Addition Different Signs	$0 + (-8) = \boxed{-8}$ 	$6 + (-10) =$ $\frac{10}{4} \leftarrow \text{larger abs. value}$ $\frac{-6}{4}$ $\boxed{-4}$
	$-9 + 4 = \boxed{-5}$ 	$-7 + 5 =$ $\frac{-7}{2} \leftarrow \text{larger abs. value}$ $\frac{2}{2}$ $\boxed{-2}$

4.  $8 + (-9) = \boxed{-1}$

5.  $-7 + 13 = \boxed{6}$

6.  $4 + (-8) = \boxed{-4}$



Subtract integers by rewriting the problem as addition. Follow the addition rules from before.

Subtraction	Number Line $3 + (-11)$	Integer Operations
		$10 - 6 =$ 
	$-5 - 7 =$ 	

7.  $-3 - 7 =$

8.  $5 - 12 =$

9.  $-2 - 6 =$

For multiplication or division, when the signs of both numbers are the same, the product/quotient is positive. When the signs of both numbers are different, the product/quotient is negative.

Multiplication & Division	Number Line $4 \cdot (-2)$	Integer Operations
	<p><i>different sign</i></p>	$-2 \cdot -6 =$ 
<p><i>same sign</i></p>	$-14 \div 7 =$ 	

10.  $-8 \cdot (-4) =$

11.  $144 \div (-12) =$

12.  $5 \cdot (-9) =$

Homework: Integer Operations Maze Worksheet

