

Pre-Algebra  
Variables, Expression, and Integers  
Example 5

Add, Subtract, Multiply, Divide Integers

Evaluate the following expressions:

1.  $7 - 10$     2.  $-7 + 10$     3.  $-9(2)$     4.  $(-9)(-2)$     5.  $-8 \div 4$     6.  $(-8) \div (-4)$

1.  $7 - 10$   
 $= -3$   
-3

2.  $-7 + 10$   
 $= 3$   
3

3.  $-9(2)$   
 $= -18$   
-18

4.  $(-9)(-2)$   
 $= 18$   
18

5.  $\frac{-8}{4}$   
 $= -2$   
-2

6.  $\frac{-8}{-4}$   
 $= 2$   
2

Evaluate the following expressions when  $x = -5$

1.  $\frac{x+6}{2}$

1.  $\frac{x+6}{2}$   
 $= \frac{-5+6}{2}$   
 $= \frac{1}{2}$   
 $\frac{1}{2}$

2.  $\frac{x^2 - 10}{x}$

2.  $\frac{(-5)^2 - 10}{-5}$   
 $= \frac{(-5)(-5) - 10}{-5}$   
 $= \frac{25 - 10}{-5}$   
 $= \frac{15}{-5}$   
 $= -3$   
-3

3.  $\frac{x+3}{-2}$

3.  $\frac{-5+3}{-2}$   
 $= \frac{-2}{-2}$   
 $= 1$   
1