\[
\begin{align*}
\left( \frac{4.6}{5} \right) &= \frac{1}{2.6} \\
-\frac{4.6}{5} &= -\frac{1}{2.6} \\
\left| -\frac{23}{5} \right| &= \frac{23}{5} \\
|\frac{-23}{5}| &= \frac{23}{5} = \frac{4.6}{5} = 4.6
\end{align*}
\]
$-b = 6$  
$6 > 5$  

The opposite of $a - 6$

\[
\begin{align*}
8 + (-6) &= 2 \\
-8 + 6 &= -2 \\
8 + 6 &= 14 \\
-8 + |6| &= -14
\end{align*}
\]
\[ 14.56 - 45.71 = 53.65 \]
Subtraction

\[ 10.3 - (-7.9) = 10.3 + (+7.9) = 18.2 \]

\[ 10.3 + (+2.9) \]

\[ 8 - 8 = 8 + (-8) = 0 \]

\[ \begin{align*}
12 - 9 &= 12 + (-9) = 3 \\
-12 - 9 &= -12 + (-9) = -21 \\
12 - (-9) &= 12 + (+9) = 21 \\
-12 - (-9) &= -12 + (+9) = -3
\end{align*} \]

\[ \begin{align*}
7 + (-11) &= -4 \\
7 + (+11) &= 18 \\
-7 + (-11) &= -18 \\
-7 + (+11) &= 4
\end{align*} \]
-6.3 + (+12.4) = 6.1
-6.3 + (+12.4) = 6.1
\[-8 + 43 + 2 + 5 + 7 + (-3) + 5\]

\[\circled{23}\]

\[-2 \times 3\]

\[\circled{18}\]
1.8 Multiplication and Division of Real Numbers

1 Multiply Numbers

The following rules are used in determining the sign of the product when two numbers are multiplied.

The Sign of the Product of Two Real Numbers

1. The product of two numbers with like signs is a positive number.
2. The product of two numbers with unlike signs is a negative number.

The product of two positive numbers or two negative numbers will be a positive number. The product of a positive number and a negative number will be a negative number.

\[ (+)(+)=+ \]
\[ (+)(-)=- \]
\[ (-)(+)=- \]
\[ (-)(-)=+ \]

\[ -20 \quad -42 \quad 21 \quad \]
\[ -40 \quad 32 \quad 0 \quad 0 \]
EXAMPLE 4 Evaluate.

\[ (-5)(-3)(1)(-4) \]
\[ = 60 \]

\[ (-2)(-4)(-1)(3)(-4) \]
\[ = -96 \]

If you have even \# of Negative Signs in A Product
The Answer Is Positive.

If you have an odd \# of Negative Signs in A Product
The Answer Is Negative.
\((-1)(-2) = 2\)
\((-1)(-2)(-3) = \_6\)
\((-1)(-2)(-3)(-4) = +24\)
\(2 \cdot (-3)\)
\(-6(-4) = \)

\((-1)(-2)(-3)(-4)(-5) = -120\)
\((24)(-5)\)
\[
\frac{10}{-2} = -\frac{10}{2} = -\frac{5}{1} = -5
\]
\[
\frac{2}{3} = \frac{2}{3} = -\frac{2}{3}
\]

Cancel Here!

\[
\frac{3}{4} \div \left( -\frac{7}{8} \right) = \frac{3}{4} \times \left( -\frac{8}{7} \right) = -\frac{6}{7}
\]
$6 \div 2 = 3$

$0 \div 2 = 0$

$2 \div 0 = \text{Undefined}$

$2 \cdot 3 = 6$

$0 \cdot 2 = 0$

$\frac{2}{0} = \text{Undefined}$
\[ = -12 \]

\[ \frac{4}{5} x \left( -\frac{3}{10} \right) = -\frac{12}{50} = \frac{-6}{25} \]
\[
= -2 \\
= 15 \\
= -9 \\
= -1 \\
\frac{26}{-11} = -2 \\
\frac{13}{2} = \frac{26}{2} \\
= -\frac{16}{2} \times \frac{3}{5} = -\frac{48}{5} = 9\frac{3}{5} \\
= \frac{9\frac{3}{5}}{5} \\
\]