

Multiplying Two Negative Numbers

Connect

Multiplying

	+		
		-	
+	$10 \times 32 = 320$ +	$5 \times (-3) = -15$ -	$-3 + -3 + -3$ $+ -3 + -3$
	$6 \times 9 = 54$	$10 \times (-22) = -220$	
-	$-7 \times 2 = -14$ -	$-3 \times (-4) = 12$ +	
	$-8 \times 8 = 64$	$-10 \times (-13) = 130$	

I do

$$- \times - = +$$

$$-7 \times (-6) =$$

$$-100 \div (-5) =$$

$$-\frac{3}{5} \cdot \left(-\frac{1}{2}\right) =$$

$$\left(-\frac{3}{4}\right) \div \left(-\frac{2}{3}\right) =$$

$$-2.4 \cdot (-6.25) =$$

$$\begin{array}{l} -2 + -2 + -2 \\ + -2 + -2 \end{array}$$

$$-2 \times (-5) = +10$$

$$-2(5 + -5) = 0$$

distributive property

$$-2 \cdot 5 + -2 \cdot (-5) = 0$$

$$\begin{array}{c} \downarrow \\ -10 \end{array} + \begin{array}{c} \downarrow \\ ? \end{array} = 0$$

$$\begin{array}{c} \downarrow \\ \textcircled{+10} \end{array}$$

-2 groups

$$-2(5 + -5) = 0$$

$$\begin{array}{c} -2 \cdot 5 + -2(-5) = 0 \\ \downarrow \qquad \qquad \downarrow \\ -10 + 10 = 0 \end{array}$$

Proof

We do

multiply or divide

	+	-
+	+	-
-	-	+ *

We do

$$-10 \cdot (-25)$$

$$\left(-\frac{1}{2}\right) \cdot \left(-\frac{6}{5}\right)$$

$$-2.3 \cdot (-3.151)$$

$$(-20) \div (-4)$$

$$\left(-\frac{2}{3}\right) \div \left(-\frac{3}{5}\right)$$

You do together
on whiteboard

$$-\frac{2}{7} \cdot \left(-\frac{3}{4}\right) =$$

$$\frac{-3}{4} \div -\frac{1}{4}$$

You do alone on
index card

$$-15 \div (-5) =$$

$$-\frac{2}{3} \div \left(-\frac{1}{2}\right) =$$

$$-4.2 \cdot (-1.6)$$