

## Unit 2: Integers

Name: \_\_\_\_\_

## 2.2 Multiplying Integers Using Rules

Note: To multiply integers, multiply the numbers together to get the digit of your answer.  
Use your sign rules to determine the sign of your answer.

Sign Rules:

$$\textcircled{+} \times \textcircled{+} = \textcircled{+}$$

$$\textcircled{+} \times \textcircled{-} = \textcircled{-}$$

$$\textcircled{-} \times \textcircled{+} = \textcircled{-}$$

$$\textcircled{-} \times \textcircled{-} = \textcircled{+}$$

Examples:

$$1. \quad (-5) \times (-8) = +40$$

$$2. \quad (-6) \times (+9) = -54$$

$$3. \quad (+3) \times (-7) = -21$$

$$4. \quad (+11) \times (+11) = +121$$

Area Model:

1.  $(-34) \times (+56) = -1904$

	30	4	
50	$50 \times 30 = 1500$	$50 \times 4 = 200$	
6	$30 \times 6 = 180$	$6 \times 4 = 24$	
			$\begin{array}{r} 1500 \\ 200 \\ 180 \\ + 24 \\ \hline 1904 \end{array}$

2.  $(-125) \times (+24) = -3000$

	100	20	5
20	$100 \times 20 = 2000$	$20 \times 20 = 400$	$20 \times 5 = 100$
4	$100 \times 4 = 400$	$20 \times 4 = 80$	$4 \times 5 = 20$

$$\begin{array}{r} 2000 \\ 400 \\ 100 \\ 400 \\ 80 \\ + 20 \\ \hline 3000 \end{array}$$

Problem:

Brock earns \$24 per day for 10 days for his newspaper route.

He spends \$8 per day for 10 days on school lunches.

How much money does he have left?

earns:  $(+24) \times (+10) = +240$

spends:  $(-8) \times (+10) = -80$

Left:

$$\begin{array}{r} 240 \\ - 80 \\ \hline \$160 \end{array}$$