Unit B Multiplying and Dividing Fractions

Name ________________________________

Unit Review Packet

Directions: Do ALL (A) Questions. Check Your Answers to (A) Questions. If ALL (A) Questions are correct, skip (B) Questions and move onto next “I can” statement. If you get any (A) Questions wrong, MAKE CORRECTIONS and do ALL (B) Questions.

Simplifying Fractions:

A1: \[ \frac{12}{32} = \] A2: \[ \frac{6}{48} = \] A3: \[ \frac{21}{27} = \] A4: \[ \frac{42}{84} = \]

B1: \[ \frac{16}{20} = \] B2: \[ \frac{9}{36} = \] B3: \[ \frac{18}{30} = \] B4: \[ \frac{30}{75} = \]

Mixed Numbers to Improper Fractions:

A1: \[ \frac{32}{7} = \] A2: \[ \frac{13}{3} = \] A3: \[ \frac{84}{9} = \] A4: \[ \frac{122}{5} = \]

B1: \[ \frac{25}{8} = \] B2: \[ \frac{45}{6} = \] B3: \[ \frac{14}{4} = \] B4: \[ \frac{152}{3} = \]

Improper Fractions to Mixed Numbers in Simplest Form:

A1: \[ \frac{12}{10} = \] A2: \[ \frac{18}{8} = \] A3: \[ \frac{42}{9} = \] A4: \[ \frac{28}{4} = \]

B1: \[ \frac{22}{4} = \] B2: \[ \frac{50}{12} = \] B3: \[ \frac{24}{9} = \] B4: \[ \frac{36}{6} = \]
"I Can Multiply Fractions and Simplify my Answer into Simplest Terms."

| A1: | \[
\frac{18}{25} \cdot \frac{15}{20} =
\] |
|---|---|
| B1: | \[
\frac{6}{24} \cdot \frac{16}{22} =
\] |

| A2: | \[
\left(1\frac{1}{3}\right)^2 =
\] |
|---|---|
| B2: | \[
\left(\frac{2}{5}\right)^3 =
\] |

| A3: | \[
4\frac{2}{3} \cdot 24 =
\] |
|---|---|
| B3: | \[
12 \cdot 1\frac{3}{8} =
\] |

| A4: | \[
2\frac{2}{9} \cdot 4\frac{1}{8} =
\] |
|---|---|
| B4: | \[
5\frac{3}{5} \cdot 4\frac{2}{7} =
\] |

"I Can Divide Fractions and Simplify my Answer into Simplest Terms."

| A1: | \[
\frac{18}{12} \div 8 =
\] |
|---|---|
| B1: | \[
9 \div \frac{15}{11} =
\] |
<table>
<thead>
<tr>
<th>A2:</th>
<th>B2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( 400 \div 4 \frac{4}{9} = )</td>
<td>( \frac{5}{3} \div 6 = )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A3:</th>
<th>B3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( 6 \frac{1}{4} \div 1 \frac{1}{9} = )</td>
<td>( 7 \frac{1}{5} \div 2 \frac{7}{10} = )</td>
</tr>
</tbody>
</table>

>I Can Solve an Equation that involves Fractions by Using Inverse Operations.

<table>
<thead>
<tr>
<th>A1:</th>
<th>B1:</th>
</tr>
</thead>
<tbody>
<tr>
<td>( 8x = 2 \frac{2}{3} )</td>
<td>( \frac{4}{5} \cdot x = \frac{12}{17} )</td>
</tr>
</tbody>
</table>
I can model division of fractions visually and use this technique to assist in real-world situations.

A1. \( \frac{15}{6} \div \frac{2}{3} \)

\[ \begin{array}{cccccccccc}
0 & \frac{1}{6} & \frac{2}{6} & \frac{3}{6} & \frac{4}{6} & \frac{5}{6} & 1 & 2 \\
\end{array} \]

A2. \( 3 \div \frac{2}{5} \)

\[ \begin{array}{cccccccccc}
0 & \frac{1}{5} & \frac{2}{5} & \frac{3}{5} & \frac{4}{5} & 1 & 2 & 3 \\
\end{array} \]

B1. \( \frac{3}{4} \div \frac{5}{6} \)

\[ \begin{array}{cccccccccccccc}
0 & \frac{1}{12} & \frac{2}{12} & \frac{3}{12} & \frac{4}{12} & \frac{5}{12} & \frac{6}{12} & \frac{7}{12} & \frac{8}{12} & \frac{9}{12} & \frac{10}{12} & \frac{11}{12} & 1 \\
\end{array} \]

B2. \( 1 \frac{5}{6} \div \frac{1}{2} \)

\[ \begin{array}{ccccccccccc}
0 & \frac{1}{6} & \frac{2}{6} & \frac{3}{6} & \frac{4}{6} & \frac{5}{6} & 1 & 2 \\
\end{array} \]
“I Can Interpret a Real-World Situation and decide which Operation to use to Solve Word Problems involving Multiplication and Division of Fractions.”

A1: How many $\frac{2}{15}$-meter pieces of wood can you cut from a piece that is $\frac{2}{3}$-meter long?

A2: You have 5 cups of birdseed. You use $\frac{3}{5}$ cup of birdseed each day. How many days will your birdseed last?

A3: A restaurant is making hamburgers. The cooks use $\frac{2}{3}$ pounds of beef for each hamburger. If the cooks have $44\frac{2}{3}$ pounds of beef, how many hamburgers can they make?

A4: A town recorded $2\frac{3}{4}$ in. of rainfall in 6 weeks, with the same amount falling each week. How much rain fell each week?
A5: A box of snack size cracker packs weighs \(28\frac{1}{2}\) ounces. Each snack pack weighs \(4\frac{3}{4}\) ounces. How many snack packs are in the box?

A6: How many \(\frac{3}{8}\) pound bag of trail mix can be made from \(6\frac{3}{8}\) pounds of trail mix?

A7: The area of a rectangular park is \(\frac{3}{5}\) square mile. The length of the park is \(\frac{7}{8}\) mile. What is the width of the park?

A8: Bethany needs to earn money by walking a certain number of miles. She will walk for 7 days and needs to walk a total of \(8\frac{2}{5}\) miles. If she walks the same amount of miles each day, how many miles will she need to walk each day?
A9: A set of dictionaries need to be placed on a shelf. Each dictionary is \(1 \frac{7}{8}\) inches thick and the shelf is \(18 \frac{3}{4}\) inches long. How many dictionaries will fit on the shelf?

A10: Carmen has \(\frac{5}{6}\) of an hour to write an essay. If it takes her \(\frac{1}{4}\) of an hour to write each paragraph, how many paragraphs will Carmen’s essay have?

A11: Susan has \(8 \frac{4}{7}\) pounds of dog food. Each day, her dog eats \(\frac{1}{7}\) pound of dog food. How many days will the dog food last?

A12: On a string of Christmas lights, there is a light every \(2 \frac{1}{2}\) inches. If the string of Christmas lights is 100 inches long, how many lights are on the string?
# Unit B: Multiplying and Dividing Fractions Answers

## Simplifying Fractions

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>(\frac{3}{8})</td>
<td>A2</td>
<td>(\frac{1}{8})</td>
</tr>
<tr>
<td>B1</td>
<td>(\frac{4}{5})</td>
<td>B2</td>
<td>(\frac{1}{4})</td>
</tr>
</tbody>
</table>

## Mixed Numbers to Improper Fractions

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>(\frac{23}{7})</td>
<td>A2</td>
<td>(\frac{4}{3})</td>
</tr>
<tr>
<td>B1</td>
<td>(\frac{21}{8})</td>
<td>B2</td>
<td>(\frac{29}{6})</td>
</tr>
</tbody>
</table>

## Improper Fractions to Mixed Numbers in Simplest Form

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>(\frac{1}{5})</td>
<td>A2</td>
<td>(\frac{2}{4})</td>
</tr>
<tr>
<td>B1</td>
<td>(\frac{5}{2})</td>
<td>B2</td>
<td>(\frac{4}{6})</td>
</tr>
</tbody>
</table>

“I Can Multiply Fractions and Simplify my Answer into Simplest Terms.”

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>(\frac{27}{50})</td>
<td>A2</td>
<td>(\frac{7}{9})</td>
</tr>
<tr>
<td>B1</td>
<td>(\frac{2}{11})</td>
<td>B2</td>
<td>(\frac{8}{125})</td>
</tr>
</tbody>
</table>
"I Can Divide Fractions and Simplify my Answer into Simplest Terms."

A1: \( \frac{3}{16} \) Y N  
B1: \( \frac{6}{5} \) Y N  

A2: 90 Y N  
B2: \( \frac{17}{18} \) Y N  

A3: \( \frac{5}{8} \) Y N  
B3: \( \frac{2}{3} \) Y N

"I Can Solve an Equation that involves Fractions by Using Inverse Operations."

A1: \( \frac{1}{3} \) Y N  
B1: \( \frac{15}{17} \) Y N

I can model division of fractions visually and use this technique to assist in real-world situations.

A1: \( \frac{3}{4} \)  
B1: \( \frac{9}{10} \)

A2: \( 7\frac{1}{2} \)  
B2: \( 3\frac{2}{3} \)

"I Can Interpret a Real-World Situation and decide which Operation to use to Solve Word Problems involving Multiplication and Division of Fractions."

\( 3 \frac{1}{3} \) \( \square \)  
\( 17 \) \( \square \)  
\( 67 \) \( \square \)  
\( 5 \) \( \square \)  
\( 40 \) \( \square \)  
\( \frac{24}{35} \) \( \square \)  
\( 6 \) \( \square \)  
\( 1\frac{1}{5} \) \( \square \)  
\( 10 \) \( \square \)  
\( 60 \) \( \square \)  
\( 17\frac{1}{3} \) \( \square \)  
\( 11\frac{1}{24} \) \( \square \)