Name _____

Practice Video Tools Games

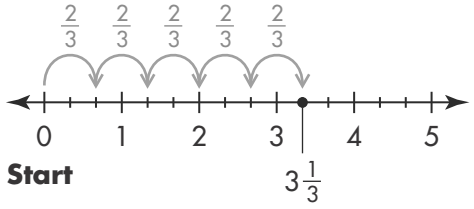
Additional Practice 8-8
Multiplication as Scaling

Another Look!

Theodore and Pam are rolling out modeling clay for an activity in art class. Theodore rolled out his clay until it was 5 inches long. Pam rolled hers $\frac{2}{3}$ times as far. Did Pam roll her clay out less than, more than, or the same as Theodore?

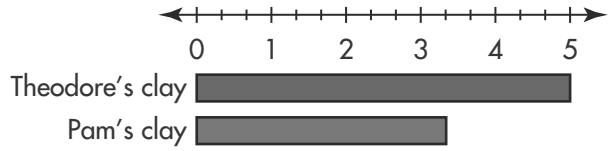
Step 1

Use a number line to find out how far Pam rolled out her clay. The arrows show $5 \times \frac{2}{3}$.



Step 2

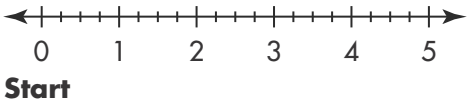
Use a number line to compare the lengths of clay.



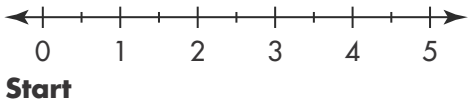
Pam rolled her clay out less than Theodore.

In **1** and **2**, decide which symbol belongs in the box: <, >, or =. Use the number line to help find the answer.

1. $5 \times \frac{3}{4} \square 5$



2. $1\frac{1}{2} \times 3 \square 3$



In **3–8**, without multiplying, decide which symbol belongs in the box: <, >, or =.

3. $5\frac{1}{3} \times 2\frac{3}{4} \square 5\frac{1}{3}$

4. $10\frac{3}{4} \times \frac{2}{2} \square 10\frac{3}{4}$

5. $\frac{1}{12} \times 1\frac{6}{7} \square 1\frac{6}{7}$

6. $5\frac{1}{5} \times 5\frac{1}{10} \square 5\frac{1}{10}$

7. $\frac{1}{4} \times 4\frac{1}{2} \square 4\frac{1}{2}$

8. $3\frac{9}{10} \times 1\frac{2}{3} \square 1\frac{2}{3}$

In **9** and **10**, without multiplying, order the following products from least to greatest.

9. $\frac{5}{6} \times 1\frac{8}{9}$ $\frac{5}{6} \times \frac{1}{4}$ $\frac{5}{6} \times 10\frac{1}{12}$ $\frac{5}{6} \times \frac{6}{6}$

10. $\frac{1}{12} \times \frac{1}{4}$ $3\frac{1}{4} \times \frac{1}{4}$ $4\frac{1}{3} \times \frac{1}{4}$ $\frac{1}{10} \times \frac{1}{4}$

11. Higher Order Thinking Without multiplying, decide which symbol belongs in the box: <, >, or =. Explain how you decided.

$2\frac{1}{3} \times \frac{1}{8} \square 2\frac{1}{2}$

12. Erin is making fruit salad. For each bowl of fruit salad, she needs $\frac{2}{3}$ cup of strawberries. How many cups of strawberries will she use if she makes 18 bowls of fruit salad?

13. Who spent more time studying by the end of the week? Use the table below that shows the number of hours spent studying.

DATA

	Monday	Tuesday	Wednesday	Thursday	Friday
Mark	$2\frac{1}{6}$	$1\frac{5}{6}$	$3\frac{3}{4}$	$2\frac{1}{8}$	$\frac{5}{6}$
Diane	$2\frac{1}{2}$	$\frac{5}{6}$	$3\frac{2}{3}$	$3\frac{2}{3}$	$\frac{3}{4}$

14. Make up two decimals with an answer close to the given product.

__.__ × __.__ = 5.5

15. Use Structure Put the following products in order from greatest to least, without multiplying.

$3\frac{1}{8} \times \frac{1}{8}$ $\frac{2}{3} \times 3\frac{1}{8}$ $3\frac{1}{8} \times 3\frac{1}{8}$ $3\frac{1}{8} \times \frac{4}{4}$

Assessment Practice

16. Write each expression in the correct answer space to show products less than $\frac{2}{3}$ and those greater than $\frac{2}{3}$.

Less than $\frac{2}{3}$	Greater than $\frac{2}{3}$

$\frac{2}{3} \times 1\frac{1}{2}$ $\frac{2}{3} \times \frac{2}{3}$ $\frac{2}{3} \times \frac{1}{2}$ $2\frac{2}{3} \times \frac{2}{3}$

17. Write each expression in the correct answer space to show products less than $10\frac{1}{2}$ and those greater than $10\frac{1}{2}$.

Less than $10\frac{1}{2}$	Greater than $10\frac{1}{2}$

$1\frac{1}{12} \times 10\frac{1}{2}$ $\frac{1}{12} \times 10\frac{1}{2}$ $10\frac{1}{3} \times 10\frac{1}{2}$
$1\frac{1}{9} \times 10\frac{1}{2}$