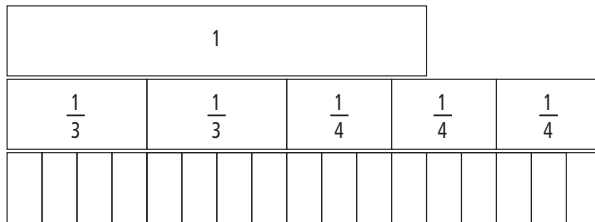


Name _____

A Fraction Strip Above the Rest

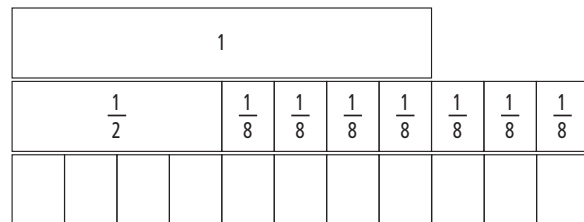
Use fraction strips to find the sum. Add the fractions and answer the following questions.



1. What fraction represents each fraction strip on the bottom row?

2. Write the total amount shown by the fraction strips on the bottom row.


3. Write the equation shown by the fraction strips in the second row.



4. What fraction represents each fraction strip on the bottom row?

5. Write the total amount shown by the fraction strips on the bottom row.

6. Write the equation shown by the fraction strips in the second row.

7.  **Write Math** If you add another $\frac{1}{4}$ to the second row of the model on the left, could you find the sum using the fraction strips in the second row?

8. **Stretch Your Thinking** If you add another $\frac{1}{8}$ to the second row of the model on the right, how would your equation and answer change?

Name _____

Fraction Strip Subtraction

Find the difference between the fraction shown by the strips in the first column and each of the three fractions shown by the strips in the second column. Write each difference in simplest form in the third column.

<p>1.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ </div>	<p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{3}$ $\frac{1}{3}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{2}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$</div></p>	<p>=</p> <p>=</p> <p>=</p>
<p>2.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ </div>	<p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{4}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{2}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{3}$</div></p>	<p>=</p> <p>=</p> <p>=</p>
<p>3.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ </div>	<p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{4}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{2}$</div></p> <p>– <div style="border: 1px solid black; padding: 5px; display: inline-block;">$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$</div></p>	<p>=</p> <p>=</p> <p>=</p>

4. Stretch Your Thinking Label the fraction strips to complete the equation.

–

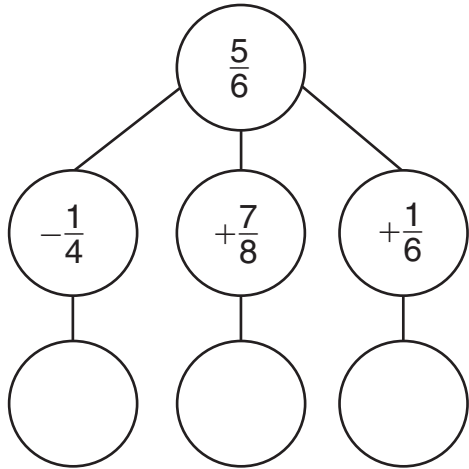
= $\frac{1}{10}$

Name _____

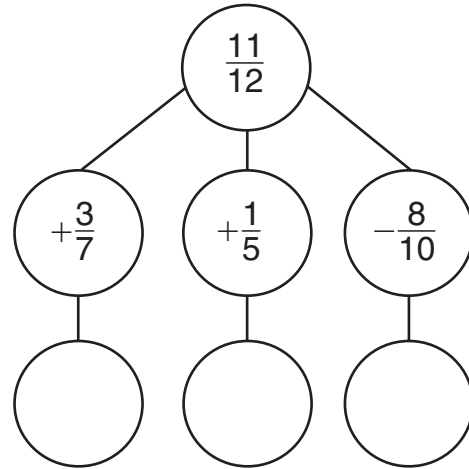
Estimation Comes Full Circle

Estimate each sum or difference. Write your answers in the circle connected to each expression.

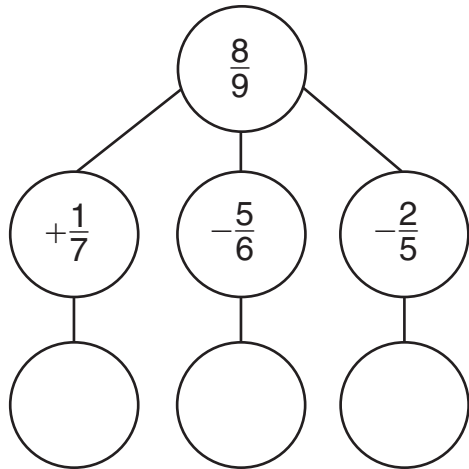
1.



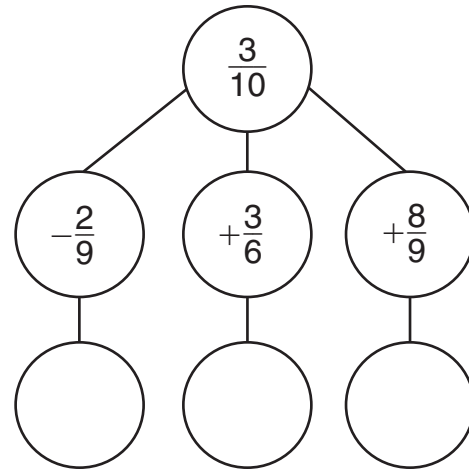
2.



3.



4.



5. Think About It! Change the fractions in Exercise 2 so that all three answers have the same estimate.

6. Stretch Your Thinking Use two fractions to write an expression with an estimated sum of 2.

Name _____

Find the Denominators

Find each pair of denominators.

1. The least common denominator of two fractions is 12. If you add the two denominators, their sum is 7. What are the denominators?


3. The least common denominator of two fractions is 30. If you add the two denominators, their sum is 17. What are the denominators?

5. The least common denominator of two fractions is 100. If you subtract the two denominators, their difference is 5. What are the denominators?

2. The least common denominator of two fractions is 24. If you add the two denominators, their sum is 14. What are the denominators?

4. The least common denominator of two fractions is 20. If you subtract the two denominators, their difference is 1. What are the denominators?

6. The least common denominator of two fractions is 28. If you subtract the two denominators, their difference is 10. What are the denominators?

7.  **Write Math** **Explain** in writing how you found the answer to Exercise 2.

Name _____

Let's Make a Fraction

Use the conversion chart below to replace each letter with a fraction. Find a common denominator and solve. Show your work. Write your answer in simplest form. The first one is done for you.

Fraction Conversion Chart				
$a = \frac{1}{2}$	$b = \frac{2}{3}$	$c = \frac{3}{4}$	$d = \frac{4}{5}$	$e = \frac{2}{5}$
$f = \frac{5}{6}$	$g = \frac{1}{6}$	$h = \frac{2}{7}$	$i = \frac{5}{7}$	$j = \frac{1}{8}$
$k = \frac{5}{8}$	$l = \frac{7}{8}$	$m = \frac{4}{9}$	$n = \frac{8}{9}$	$o = \frac{3}{10}$

1. $a + c =$

$$\frac{1}{2} + \frac{3}{4} = \frac{2}{4} + \frac{3}{4} = \frac{5}{4} = 1\frac{1}{4}$$

2. $b + h =$

3. $d - a =$

4. $n - b =$

5. $e + o =$

6. $l - c =$

7. $m + g =$

8. $d - o =$

9. **Think About It!** Add the answer for Exercise 7 to the answer for Exercise 8. What is the sum? Write your answer in simplest form.

10. **Stretch Your Thinking** Find $h + m$. Subtract i from the sum. What is your answer?

Name _____

Mixed Number Sums and Differences

Write equivalent fractions and then find the sum or difference. Write the answer in simplest form. Write the letter of the exercise above its sum or difference at the bottom of the page to answer the riddle. Two have been done for you.

A. $1\frac{1}{3} + 2\frac{1}{4} =$ _____

E. $5\frac{9}{10} - 3\frac{2}{5} =$ $2\frac{1}{2}$ _____

E. $8\frac{5}{8} - 7\frac{1}{2} =$ _____

N. $4\frac{3}{4} - 3\frac{1}{4} =$ _____

O. $1\frac{3}{4} + 1\frac{7}{8} =$ _____

R. $2\frac{1}{6} + 1\frac{7}{12} =$ _____

R. $1\frac{9}{10} + 1\frac{4}{15} =$ $3\frac{1}{6}$ _____

S. $6\frac{5}{6} - 4\frac{3}{8} =$ _____

U. $8\frac{5}{6} - 6\frac{4}{9} =$ _____

V. $7\frac{1}{2} - 6\frac{1}{5} =$ _____

X. $1\frac{1}{6} + 1\frac{8}{9} =$ _____

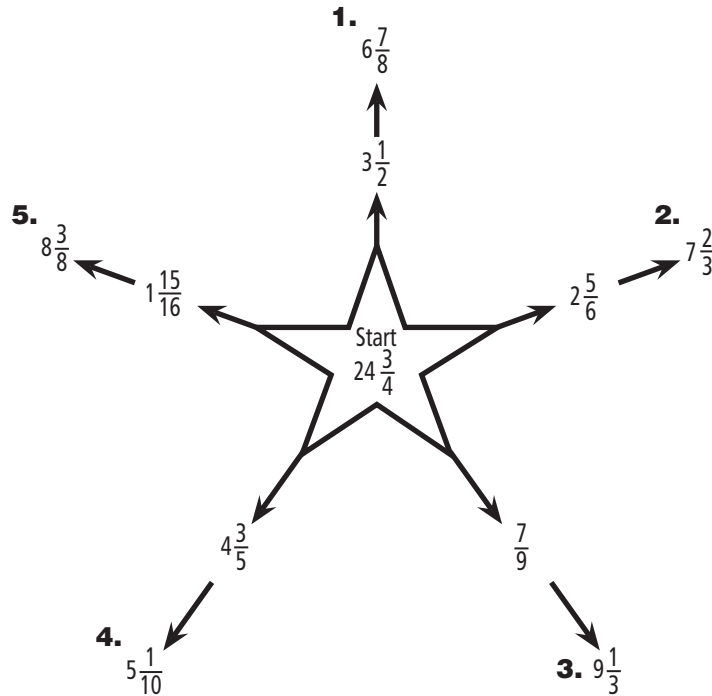
What do you call a scared dinosaur?

$\frac{3}{12}$ $\frac{7}{12}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{2}{2}$ $\frac{3}{4}$ $\frac{3}{4}$ $\frac{1}{10}$ $\frac{3}{8}$ $\frac{5}{8}$ $\frac{2}{18}$ $\frac{7}{18}$ $\frac{2}{24}$ $\frac{11}{24}$ $\frac{3}{6}$ $\frac{1}{6}$ $\frac{1}{8}$ $\frac{3}{18}$ $\frac{1}{18}$

Name _____

Star Ray Differences

Start in the center of the star. Subtract the fraction or mixed number along the arrows to find the five answers in simplest form.



1. _____ 2. _____ 3. _____ 4. _____ 5. _____

6. **Stretch Your Thinking** Order the answers from least to greatest.

7. **Write Math** Explain how you found the answer to Exercise 6.

Fractions Rule

For each sequence, the first term and one more term are given.
Find a possible rule for the sequence.

1. First term: $2\frac{3}{4}$

Sixth term: $3\frac{7}{12}$

Possible rule: _____

3. First term: $3\frac{1}{9}$

Seventh term: $7\frac{1}{9}$

Possible rule: _____

5. First term: $2\frac{3}{4}$

Eighth term: $12\frac{1}{12}$

Possible rule: _____

2. First term: 10

Eighth term: $5\frac{4}{5}$

Possible rule: _____

4. First term: $6\frac{7}{12}$


Sixth term: $5\frac{1}{3}$

Possible rule: _____

6. First term: $7\frac{1}{3}$

Seventh term: $\frac{1}{3}$

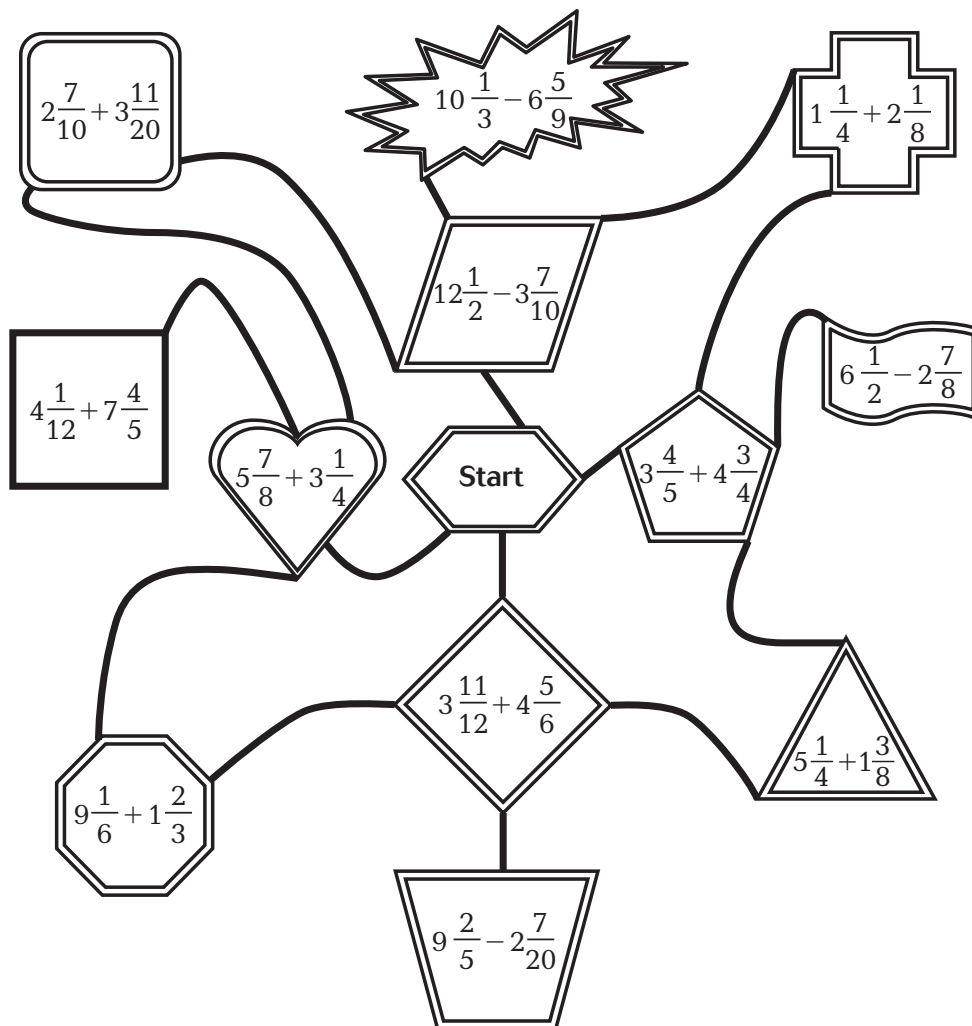
Possible rule: _____

7.  **Write Math** **Explain** in writing how you found the answer to Exercise 1.

Name _____

The Path of Least Resistance

Always choose the path with the least value. Do not retrace any parts of the path. What shapes are on this path?



1. Which shape contains the greatest value? What is that value?

2. **Stretch Your Thinking** Use the second lowest value as your first choice. Then use lowest values the rest of the way. What shapes are on the new path?

Name _____

Which Property?

Use the properties and mental math to solve. Find each unknown number.

1. $\left(\frac{7}{8} + \frac{3}{4}\right) + \frac{\square}{8} = 1\frac{3}{4}$


2. $\left(\frac{5}{8} + \frac{\square}{7}\right) + \frac{3}{8} = 1\frac{4}{7}$

3. $\left(3\frac{4}{5} + \square\frac{5}{6}\right) + 5\frac{1}{5} = 11\frac{5}{6}$

4. $\left(\square\frac{7}{10} + 4\frac{2}{3}\right) + 2\frac{3}{10} = 14\frac{2}{3}$

5. $\left(5\frac{2}{3} + 8\frac{1}{\square}\right) + 9\frac{1}{3} = 23\frac{1}{6}$

6. $\left(8\frac{7}{12} + 10\frac{3}{\square}\right) + 6\frac{5}{12} = 25\frac{3}{4}$

7.  **Write Math** Tell how you can use the properties and mental math to find the unknown number in Exercise 1.

8. **Stretch Your Thinking** How does using properties help you find unknown numbers mentally in these exercises?
