Grade 5

Number Sense & Numeration: Proper Fractions, Improper Fractions, and Mixed Numbers

Don't forget to play the game, Flitting With Fractions, first! Go to mathfrog.ca for the link.

1. Shade the given fraction of each shape. Part a) has been done for you.
   a) \( \frac{4}{5} \)  
   b) \( \frac{1}{2} \)  
   c) \( \frac{3}{4} \)  
   d) \( \frac{12}{20} \)  
   e) \( \frac{12}{32} \)

2. Write the fraction which is shaded. Part a) has been done for you.
   a) \( \frac{5}{9} \)  
   b) \( \frac{\square}{3} \)  
   c) \( \frac{\square}{4} \)  
   d) \( \frac{\square}{12} \)  
   e) \( \frac{\square}{5} \)

3. In each box, write P if the fraction is proper, I if it is improper, and M for a mixed number. Part a) has been done for you.
   a) \( \frac{8}{9} \)
   b) \( \frac{15}{7} \)
   c) \( \frac{15}{16} \)
   d) \( \frac{2}{3} \)
   e) \( 1\frac{5}{6} \)
   f) \( 11\frac{21}{75} \)
   g) \( \frac{75}{122} \)
   h) \( \frac{88}{27} \)
   i) \( \frac{8}{1} \)
   j) \( \frac{6}{12} \)
   k) \( 14\frac{7}{9} \)
   l) \( \frac{9}{8} \)

What fraction of these numbers are improper fractions?

Is this a proper fraction, an improper fraction, or a mixed number? __________________________

Why? __________________________

Did You Know?

Every time you lick a stamp, you consume \( \frac{1}{10} \) of a calorie.

Expectations: i) represent fractions; ii) explain the meaning of the denominator and the numerator; iii) compare and order fractions.
4. Write the missing improper fraction or mixed number in lowest (reduced) terms.

<table>
<thead>
<tr>
<th>a) 1 ½</th>
<th>b) 5 3</th>
<th>c) 47 7</th>
<th>d) 14 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 1 ½</td>
<td>b) 5 3</td>
<td>c) 47 7</td>
<td>d) 14 3</td>
</tr>
<tr>
<td>e) 8 5 6</td>
<td>f) 5 4 9</td>
<td>g) 14 4</td>
<td>h) 6 4 10</td>
</tr>
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<td>e) 8 5 6</td>
<td>f) 5 4 9</td>
<td>g) 14 4</td>
<td>h) 6 4 10</td>
</tr>
<tr>
<td>i) 38 13</td>
<td>j) 88 25</td>
<td>k) 5 4 12</td>
<td>l) 6 24 50</td>
</tr>
</tbody>
</table>

5. Place > for ‘greater than’, < for ‘less than’, or = for ‘equal to’ between each pair of fraction.

Part a) has been done for you.

| a) 5 2 | b) 2 8 11 | c) 15 9 1 2 3 |
| a) 5 2 | b) 2 8 11 | c) 15 9 1 2 3 |
| d) 2 2 3 | e) 3 5 24 | f) 19 10 21 20 |
| d) 2 2 3 | e) 3 5 24 | f) 19 10 21 20 |
| g) 86 8 | h) 45 18 2 5 20 | i) 6 5 19 6 5 31 |

6. Graham is fund-raising by selling chocolate bars.
Each chocolate bar costs $4.00.

a) Jim wants to buy some chocolate. He gives Graham three toonies but does not want any change. How many chocolate bars should Graham give Jim? Your answer will be either a mixed number or an improper fraction.

b) Alex gives Graham $21.00. How much chocolate should Graham give Alex?

c) If Jason gives Graham $2.50, how much chocolate should he receive?

7. Jacob, Sarah, Jennifer, and Eric ordered three 8-slice pizzas. The total cost was $36.00. Jacob paid $15.00. Sarah paid $9.00. Jennifer and Eric paid $6.00 each. What fraction of one pizza should each person receive?
Try This

Discover the hidden picture by correctly colouring each section.

Colour fractions less than \( \frac{1}{2} \) brown.

Colour fractions between \( \frac{1}{2} \) and 1 pink.

Colour fractions between 1 and \( 1\frac{1}{2} \) green.

Colour fractions greater than \( 1\frac{1}{2} \) yellow.


Expectations: i) represent fractions; ii) explain the meaning of the denominator and the numerator, iii) compare and order fractions