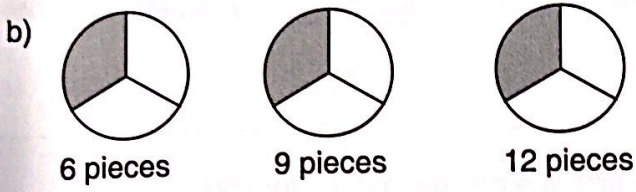
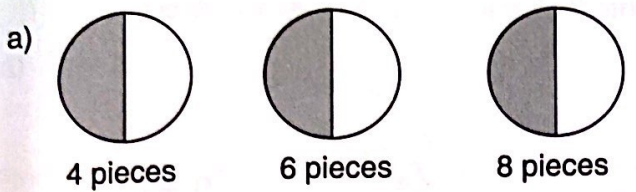


NS5-72: Models of Equivalent Fractions

1. Draw lines to cut the pies into more pieces.

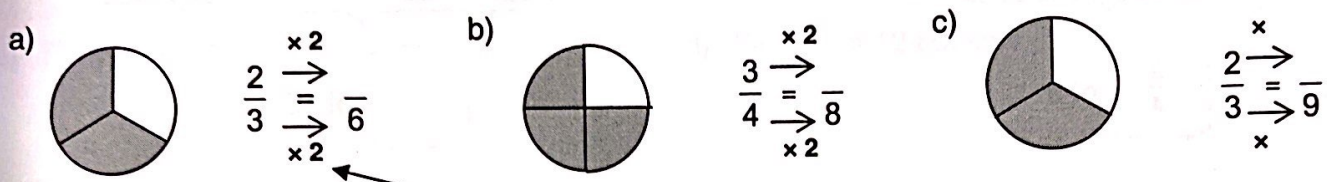


Then fill in the numerators of the equivalent fractions:

$$\frac{1}{2} = \frac{\quad}{4} = \frac{\quad}{6} = \frac{\quad}{8}$$

$$\frac{1}{3} = \frac{\quad}{6} = \frac{\quad}{9} = \frac{\quad}{12}$$

2. Cut each pie into more pieces. Then fill in the missing numbers.



This number tells you how many pieces to cut each slice into.

3. Use multiplication to find the equivalent fractions below.

a) $\frac{1}{3} \xrightarrow{\times 2} \frac{\quad}{6}$ b) $\frac{1}{2} = \frac{\quad}{10}$ c) $\frac{2}{5} = \frac{\quad}{10}$ d) $\frac{3}{4} = \frac{\quad}{8}$ e) $\frac{1}{4} = \frac{\quad}{12}$

4. Use the patterns in the numerators and denominators to find 6 fractions equivalent to ...

a) $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{\quad}{8} = \frac{\quad}{10} = \text{---}$ b) $\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \text{---} = \text{---}$

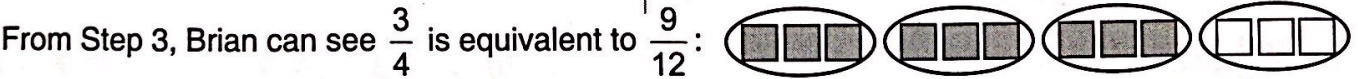
5. To show that $\frac{3}{4}$ is equivalent to $\frac{9}{12}$, Brian makes a model of $\frac{9}{12}$ using blocks.



Brian makes a model of the original fraction $\frac{3}{4}$.
(He leaves a space between the blocks.)



He adds blocks until he has placed 12 blocks.

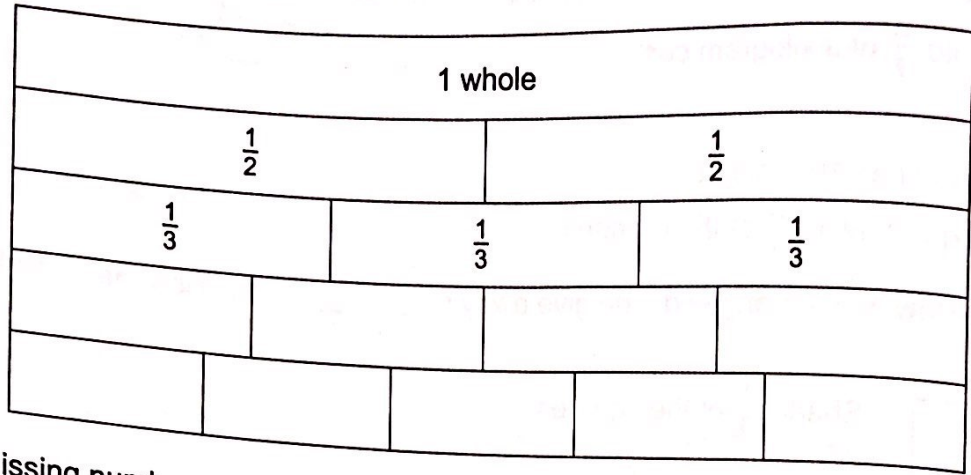


Use Brian's method to show that the fractions are equivalent.

a) $\frac{3}{5}$ and $\frac{9}{15}$ b) $\frac{2}{3}$ and $\frac{8}{12}$ c) $\frac{3}{4}$ and $\frac{12}{16}$

NS5-75: Comparing and Ordering Fractions

Use the fraction strips below to answer Questions 1 to 3.



1. Fill in the missing numbers on the fraction strips above. Then write > (greater than) or < (less than) between each pair of numbers below.

a) $\frac{1}{2}$ $\frac{2}{3}$

b) $\frac{3}{4}$ $\frac{2}{3}$

c) $\frac{2}{5}$ $\frac{3}{4}$

d) $\frac{4}{5}$ $\frac{3}{4}$

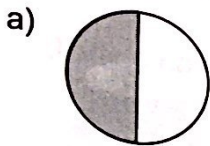
2. Circle the fractions that are greater than $\frac{1}{3}$.

- $\frac{1}{5}$ $\frac{2}{5}$ $\frac{1}{2}$

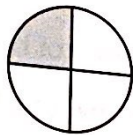
3. Circle the fractions that are greater than $\frac{1}{2}$.

- $\frac{3}{5}$ $\frac{2}{5}$ $\frac{3}{4}$

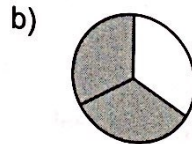
4. Draw lines to cut the left-hand pie into the same number of pieces as the right-hand pie. Then circle the greater fraction.



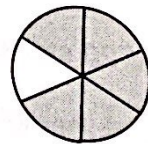
$\frac{1}{2} = \frac{\quad}{4}$



$\frac{1}{4}$



$\frac{2}{3} = \frac{\quad}{6}$



$\frac{5}{6}$

5. Turn each fraction on the left into an equivalent fraction with the same denominator as the fraction on the right. Then write > or < to show which fraction is greater.

a) $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$ $\frac{4}{6}$

b) $\frac{1}{2} \times \frac{\quad}{\quad} = \frac{\quad}{8}$ $\frac{5}{8}$

c) $\frac{1}{2} = \frac{\quad}{\quad}$ $\frac{3}{4}$

d) $\frac{1}{2} = \frac{\quad}{\quad}$ $\frac{4}{10}$

e) $\frac{1}{2} = \frac{\quad}{\quad}$ $\frac{3}{12}$

f) $\frac{1}{3} = \frac{\quad}{\quad}$ $\frac{4}{9}$

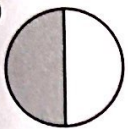
g) $\frac{1}{5} = \frac{\quad}{\quad}$ $\frac{7}{10}$

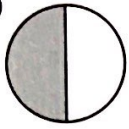
h) $\frac{1}{5} = \frac{\quad}{\quad}$ $\frac{4}{10}$


i) $\frac{1}{4} = \frac{\quad}{\quad}$ $\frac{7}{16}$

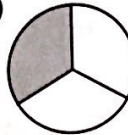
NS5-76: Lowest Common Denominator


1. Cut each pie evenly into the given number of pieces. Then write a fraction for the result.

a) 
4 pieces

b) 
6 pieces

c) 
6 pieces

d) 
9 pieces

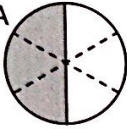
e) 
12 pieces

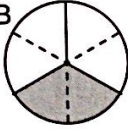
2. Recall that to find the lowest common multiple (LCM) of a pair of numbers, you first write out the multiples of the number.

Example: $4: 4 \ 8 \ 12$ ← Stop when the same number appears on both lists.
 $6: 6 \ 12 \ 18$ 12 is the LCM of 4 and 6.

Follow the steps in chart a) below to cut each pair of pies into the same number of pieces.

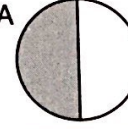
| | | |
|-------------------------|-------|-------|
| a) | Pie A | Pie B |
| Number of pieces in pie | 2 | 3 |
| LCM | 6 | |

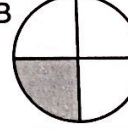
A 

B 

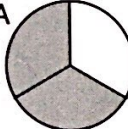
Cut each pie into this many pieces

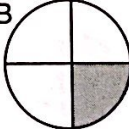
| | | |
|-------------------------|-------|-------|
| b) | Pie A | Pie B |
| Number of pieces in pie | | |
| LCM | | |

A 

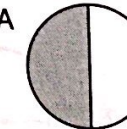
B 

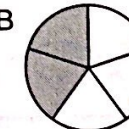
| | | |
|-------------------------|-------|-------|
| c) | Pie A | Pie B |
| Number of pieces in pie | | |
| LCM | | |

A 

B 

| | | |
|-------------------------|-------|-------|
| d) | Pie A | Pie B |
| Number of pieces in pie | | |
| LCM | | |

A 

B 

3. Create a pair of fractions with the same denominator. Circle the greater fraction.

a) $3 \times \frac{1}{2}$ $\frac{1 \times 2}{3 \times 2}$
 $3 \times \frac{1}{2}$ $\frac{2}{6}$
 The LCM of 2 and 3 is 6
 Multiply 2 by 3 to make 6
 Multiply 3 by 2 to make 6

b) $\frac{1}{3}$ $\frac{1}{4}$

c) $\frac{1}{2}$ $\frac{1}{5}$