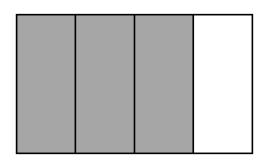
Determine how to draw horizontal lines on each rectangle to make the number of pieces specified by the denominator of the new equivalent fraction.



Original fraction

New equivalent fraction

$$\frac{3}{4} \stackrel{\times}{\times} - = \frac{1}{12}$$



Cut each piece into ____ pieces.

$$\frac{2}{3}$$
 \times $=$ $\frac{q}{q}$



Cut each piece into ____ pieces.

$$\frac{3}{4} \times - = \frac{3}{8}$$



Cut each piece into ____ pieces.

$$\frac{2}{3}$$
 \times $=$ $\frac{15}{15}$



Cut each piece into ____ pieces.

$$\frac{3}{4} \times - = \frac{3}{16}$$

4.3D

Fractions Equal to One



Dear Fraction Fairy,

My teacher taught me that I could multiply the numerator and denominator by the same number and I would get an equivalent fraction. She said both fractions are equal and they are the same amount of one whole. Here is the problem. Whenever I multiply anything, I get a new number that is bigger than the first number. Here is an example: $3 \times 5 = 15$. Is is not equal to 3. It is much bigger. Is my teacher **crazy**? Thanks, Dylan

Dear Dylan,

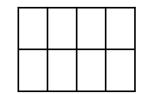
Your teacher is not crazy. She is actually very smart. When you multiply any number by ONE, the value of the number remains the same. When you multiply the numerator and the denominator by the same number you are really multiplying by ONE. Watch....



Original fraction	New equivalent
3 x \(\)	2
4 × _	2

Shade the models below.

1		



Sincerely, The Fraction Fairy

Multiplying the numerator and		
denominator by the		
	is	
really multiplying by _	_, so the	
value of the fraction	is still the	
, but the		
of pieces is different.		