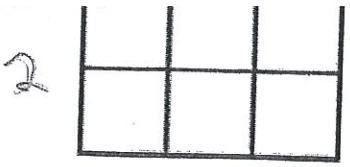
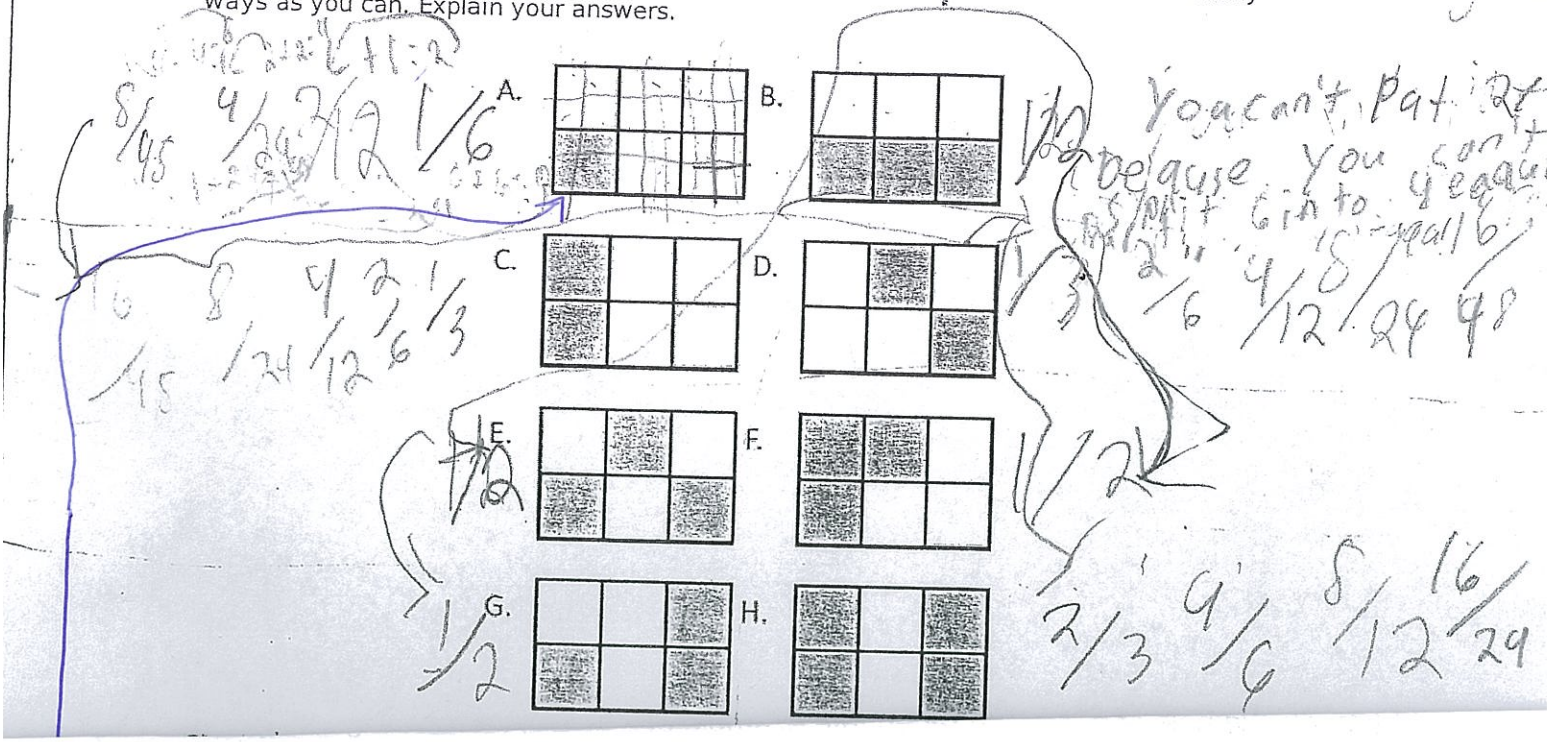


2 × 3 = 6

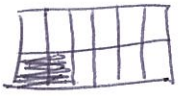
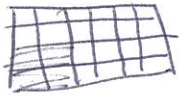
There is Six Pattern in the rectangle

b. What fraction of the area of each rectangle is shaded? Name the fraction in as many ways as you can. Explain your answers.

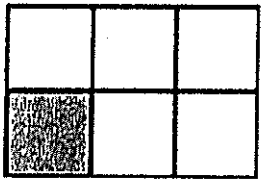


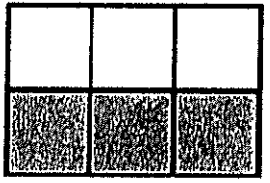
You can't Pattern because you can't split 6 in to 4 equal parts

Student:

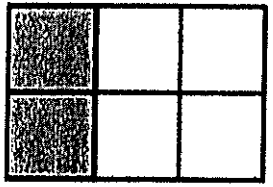
"I took the array in letter A  which is $\frac{1}{6}$, and broke it into 12 smaller equal parts –  which shows that $\frac{1}{6}$ and $\frac{2}{12}$ take up the same part of the whole. I can divide it into ~~24~~ equal parts  and now it shows that $\frac{1}{6} = \frac{2}{12}$ which is also equal to $\frac{4}{24}$. I noticed a pattern. Each step the numerator doubles + the denominator doubles."

1/6

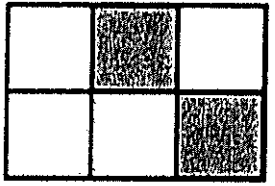
A. 

B. 

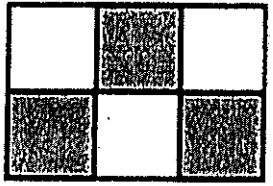
2/6

C. 

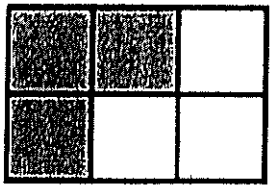
4/6 2/6

D. 

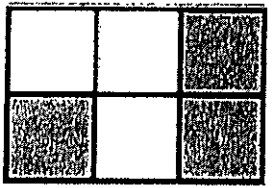
2/6 4/6

E. 

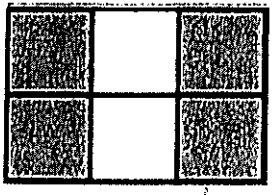
3/6

F. 

3/6

G. 

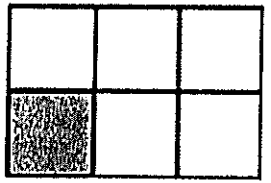
3/6

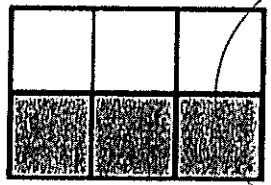
H. 

4/6 2/6

4 Parts are Blue,

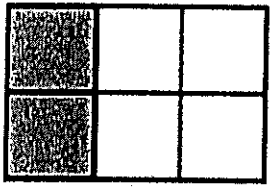
Gr 3 - Student 3

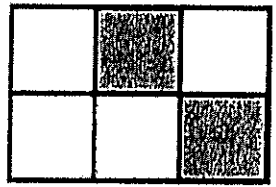
A. 

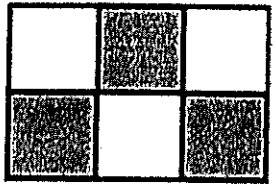
B. 

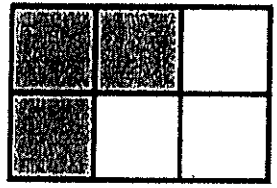
$3 \div 3 = 1$

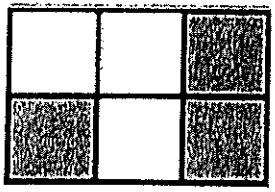
$6 \div 3 = 2$

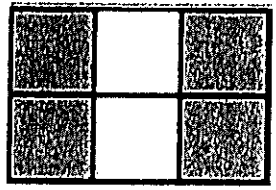
C. 

D. 

E. 

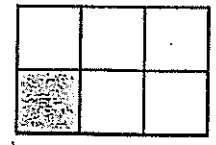
F. 

G. 

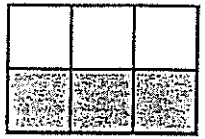
H. 

What fraction of the area of each rectangle is shaded? Name the fraction in as many ways as you can. Explain your answers.

Gr 3 -Student 4

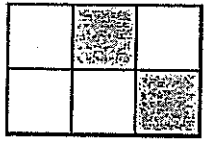


A.

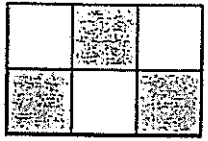


B.

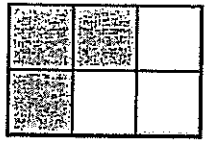
C.



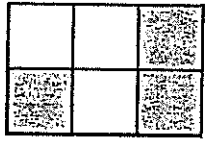
D.



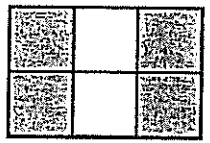
E.



F.



G.

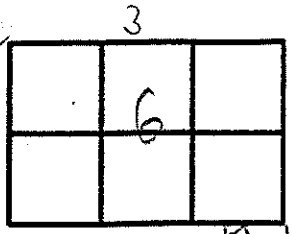


H.

Shade $\frac{1}{2}$ of the area of rectangle in a way that is different from the rectangles above.

a. A small square is a square unit. What is the area of this rectangle? Explain.

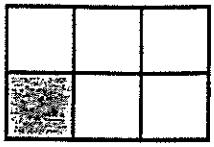
if you multiple 3 x 2 you will get the area. if you 2 multiple 2 and 2 and 3 and 3 you will get perimeter

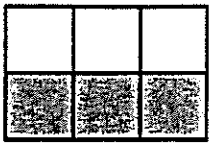


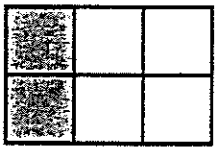
2 × 3 = 6

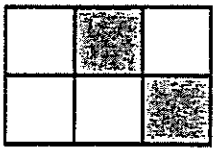
Gr 4
Student 1
(p 1 of 2)

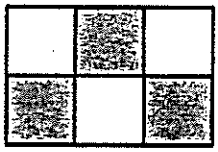
b. What fraction of the area of each rectangle is shaded blue? Name the fraction in as many ways as you can. Explain your answers.

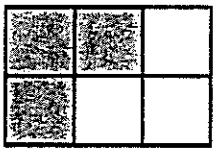
A. $\frac{1}{6}$ 

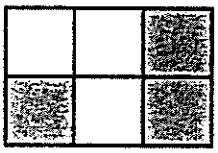
B.  $\frac{1}{2}$

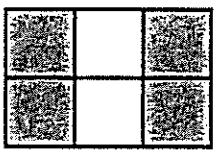
C. $\frac{2}{6}$ 

D.  $\frac{2}{6}$

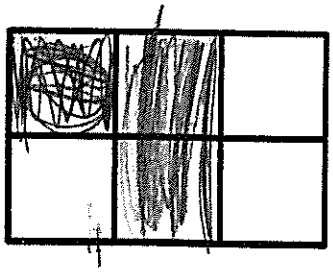
E. $\frac{1}{2}$ 

F.  $\frac{1}{2}$

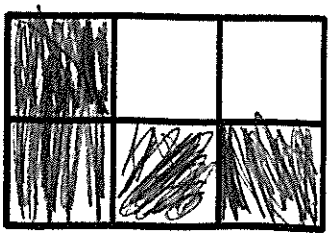
G. $\frac{1}{2}$ 

H.  $\frac{4}{6}$

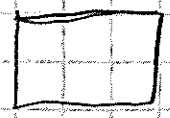
c. Shade $\frac{1}{2}$ of the area of rectangle in a way that is different from the rectangles above.



d. Shade $\frac{2}{3}$ of the area of the rectangle in a way that is different from the rectangles above.



6/12/15
Gr 4
Student 1
(p 2 of 2)

a. 

$$\begin{array}{r} 2 \\ +2 \\ \hline 4 \end{array} \qquad \begin{array}{r} 3 \\ +3 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$$

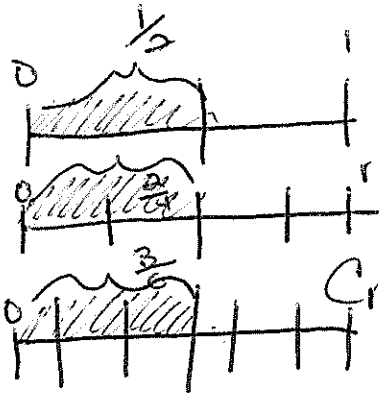
b. for the fraction A-H you would the part I shadit in ex A it's $\frac{1}{6}$ only one is shadid in and you would cont the rest.

A: 1/6, 2/12, 3/8

Gr 4
Student 2

1 2 3

B: 2, 4, 6



with models for each

C: 1/3, 2/6, 3/9

with models for each

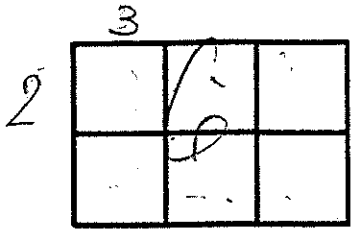
I know these fractions are equivalent because the shaded ~~area~~ area for each equivalent fraction is the same (amount).

> models demonstrate understanding of comparison of equivalent wholes. Clearly labeled models

a. A small square is a square unit. What is the area of this rectangle? Explain.

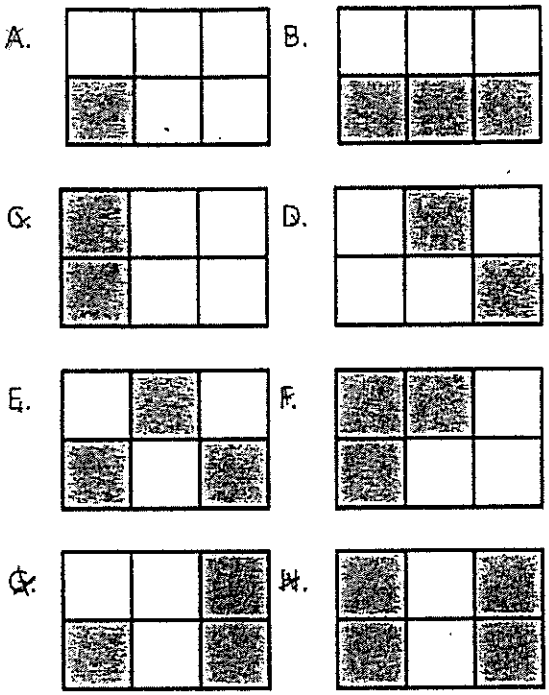
4th gr

June 12, 2012

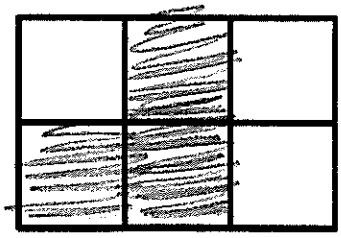


Gr 4-
Student 3
(1 of 2)

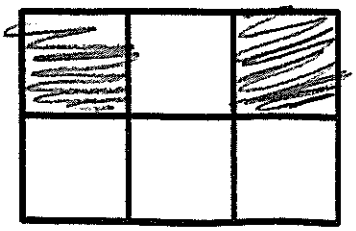
b. What fraction of the area of each rectangle is shaded blue? Name the fraction in as many ways as you can. Explain your answers.



c. Shade $\frac{1}{2}$ of the area of rectangle in a way that is different from the rectangles above.



d. Shade $\frac{2}{3}$ of the area of the rectangle in a way that is different from the rectangles above.



a. $2 \times 3 = 6$. The formula for area is $L \times W = A$

bA. $\frac{1}{6} \frac{2}{12} \frac{4}{24} \frac{8}{48} \frac{16}{96} \frac{32}{192} \frac{64}{384} \frac{128}{768} \frac{256}{1536}$ each time I make the fraction smaller, but all of the fractions listed above are equal

bB. $\frac{1}{2} \frac{2}{4} \frac{3}{6} \frac{4}{8} \frac{5}{10} \frac{6}{12} \frac{7}{14} \frac{8}{16} \frac{9}{18} \frac{10}{20} \frac{11}{22} \frac{12}{24} \frac{13}{26} \frac{14}{28} \frac{15}{30} \frac{16}{32} \frac{17}{34} \frac{18}{36}$ (I can keep going but that would take a while.) all of these fractions are equal because they are halves

bC. $\frac{1}{3} \frac{2}{6} \frac{3}{12} \frac{4}{24} \frac{5}{48} \frac{6}{96} \frac{7}{192} \frac{8}{384} \frac{9}{768} \frac{10}{1536}$ all of these are equal, and they all can be reduced to 3rd's (except for the $\frac{1}{3}$).

bD. $\frac{1}{3} \frac{2}{6} \frac{4}{12} \frac{8}{24} \frac{16}{48} \frac{32}{96} \frac{64}{192} \frac{128}{384} \frac{256}{768} \frac{512}{1536}$ These are all equal and can be reduced to $\frac{1}{3}$ (except for the $\frac{1}{3}$).

bE. $\frac{1}{2} - \frac{18}{36}$ all of the fractions are halves.

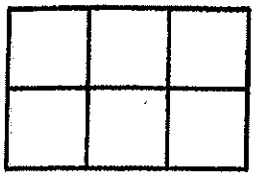
bF. $\frac{1}{2} - \frac{18}{36}$ all of the fractions are halves.

bG. $\frac{1}{2} - \frac{18}{36}$ all of the fractions are equal because they are halves

bH. $\frac{1}{6} \frac{4}{12} \frac{8}{24} \frac{16}{48} \frac{32}{96} \frac{64}{192} \frac{128}{384}$ all of these fractions are equal because if reduced, all can come to $\frac{4}{6}$

a. A small square is a square unit. What is the area of this rectangle? Explain.

To get the area you multiply length x width. (2) x (3) I got 6^2 units



2^2 units x 3^2 units = 6 sq. units

6 sq. units

b. What fraction of the area of each rectangle is shaded blue? Name the fraction in as many ways as you can. Explain your answers.

A = $\frac{1}{6} = \frac{2}{12} = \frac{4}{24} = \frac{8}{48} = \frac{16}{96} = \frac{32}{202}$

B = $\frac{1}{2}$ same as E, F, G

C = $\frac{1}{3} \Rightarrow \frac{2}{6} = \frac{4}{12} = \frac{8}{24} = \frac{16}{48} = \frac{32}{96}$

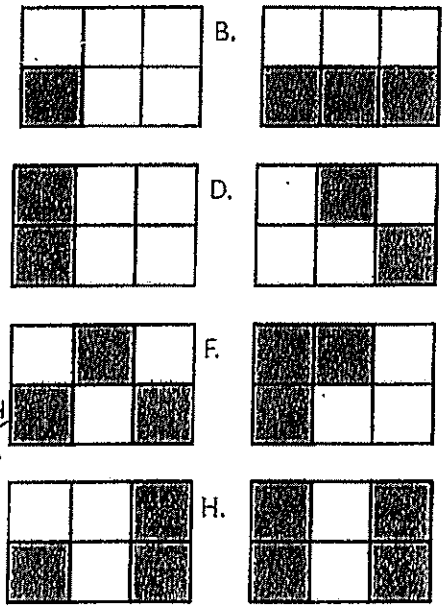
D = $\frac{1}{3}$ same as C

E = $\frac{1}{2}$ same as F and G

F = $\frac{1}{2} = \frac{3}{6} =$

G = $\frac{1}{2} = \frac{3}{6} = \frac{2}{4} = \frac{4}{12} = \frac{8}{16} = \frac{10}{20}$

H = $\frac{2}{3} = \frac{4}{6} = \frac{8}{12} = \frac{16}{24} = \frac{32}{48} = \frac{64}{96}$

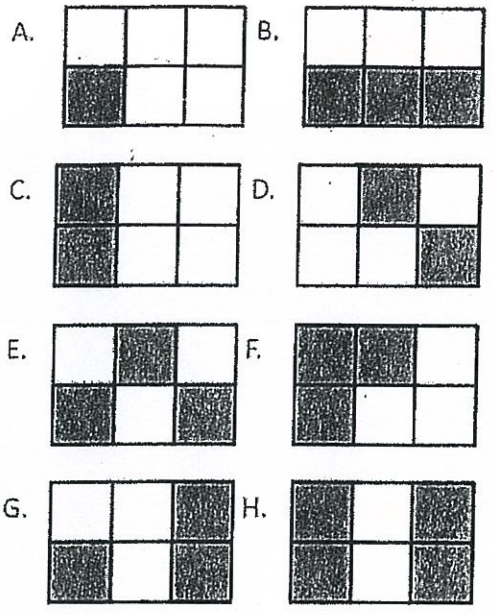


I got all the equivalent fractions because I multiplied all the fractions by $\frac{2}{2}$. To get my first solution by taking the one unit which was 6 boxes and counted all the colored boxes to get $\frac{1}{6}$ which means 1 out of 6 pieces. Then I multiplied that by $\frac{2}{2}$.

6 square units

2^2 units x 3^2 units = 6^2 uni

b. What fraction of the area of each rectangle is shaded ~~blue~~ gray? Name the fraction in as many ways as you can. Explain your answers.



A = 1/6 = 2/12 = 4/24 = 5/30 = 3/18 = 6/36

B = 3/6 = 1/2

C = 2/6 = 1/3

D = 2/6 = 1/3 = same as C

E = 3/6 = 1/2 = same as B

F = 3/6 = 1/2 = same as B

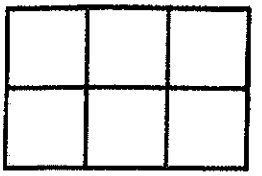
G = 3/6 = 1/2 = same as B

H = 4/6 = 2/3 = 8/12 = 12/18 = 16/24 =

JJ

I multiplied by a form of one to get each fraction. I started by multipling by 2/2 then 3/3 then 4/4 then 5/5 and finally 6/6. For the first box, I counted the amount of squares in the rectangle then I counted the shaded boxes. I got 1/6 for the first example. ~~I did any sequence of multipling fractions.~~

a. A small square is a square unit. What is the area of this rectangle? Explain.



I think area of the rectangle is 6 square units. I know this because the rectangle is split up into 6 small squares and it said that a small square is a square unit.

b. What fraction of the area of each rectangle is shaded blue? Name the fraction in as many ways as you can. Explain your answers.

A. $\frac{1}{6}, \frac{2}{12}, \frac{4}{24}, \frac{3}{18}$

B. $\frac{1}{2}, \frac{3}{6}, \frac{9}{18}, \frac{6}{12}$

C. $\frac{1}{3}, \frac{2}{6}, \frac{4}{12}, \frac{6}{18}$

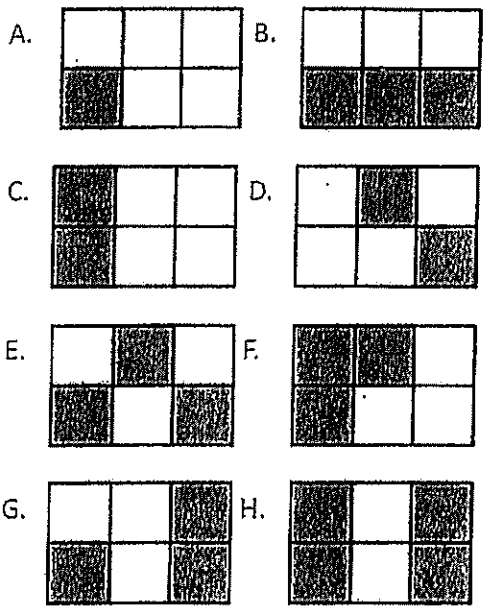
D. $\frac{2}{6}, \frac{1}{3}, \frac{6}{18}, \frac{4}{12}$

E. $\frac{1}{2}, \frac{3}{6}, \frac{50}{100}, \frac{9}{18}$

F. $\frac{3}{6}, \frac{1}{2}, \frac{50}{100}, \frac{9}{18}$

G. $\frac{1}{2}, \frac{3}{6}, \frac{500}{1000}, \frac{6}{12}$

H. $\frac{4}{6}, \frac{8}{12}, \frac{12}{18}, \frac{16}{24}$



I think

1) To find the fraction of the shape, I looked at how many parts the rectangle was split into. That would be the denominator(6). Then I looked at how many parts was shaded, and that would be the numerator(1). To find the equivalent fraction I would double the numerator and denominator, or (multiply by $\frac{2}{2}$)

One way is to multiply by a form of one. Ex: $\frac{3}{6} \cdot \frac{3}{3} = \frac{9}{18}$

$\frac{3}{3}$ is a form of one. When you multiply by 1, the value stays the same.

MEEP

Name: [redacted]

EQUIVALENCY ARGUMENT

Find a fraction equivalent to 3/8. Use diagrams, equations, and mathematical principles to prove that the fractions are equivalent.

Make sure your argument includes a claim, evidence, warrants, reasoning and conclusion.

Claim: The answer is 6/16

Evidence:

$\frac{3}{8} = \frac{6}{16}$ ~~because~~

and Reasoning

Warrent: 6/16 is the right answer because if you times the fraction by 1 (which is $\frac{2}{2}$) you get 6/16 it is the same because the numerator and the denomoator is times by 1 ($\frac{2}{2}$) so it will be the same value. Any thing times 1 is the same value

Conclusion: 6/16 is equal to 3/8 because $\frac{2}{2}$ is equal to 1 and anything times 1 is the same value so...

$$\frac{3}{8} \times \frac{2}{2} = \frac{6}{16}$$

So this why $\frac{3}{8}$ is equalent to 6/16

EQUIVALENCY ARGUMENT

Find a fraction equivalent to 3/8. Use diagrams, equations, and mathematical principles to prove that the fractions are equivalent.

Make sure your argument includes a claim, evidence, warrants, reasoning and conclusion.

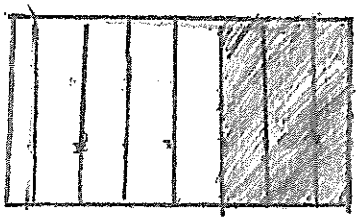
I believe that there is a fraction equivelent to 3/8.
One possibe equivelent fraction is 6/16. This is proven by the equation and diagram below.

Equation

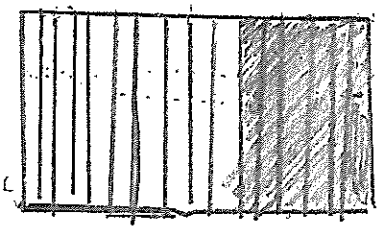
$$\frac{3}{8} \cdot \frac{2}{2} = \frac{6}{16}$$

This works because 2/2 is equal to 1 or the giant 1. Also you are multiplying the numerator and denominator by the same thing.

Diagram



3/8



6/16

So as you can see, 3/8 can easily be change to an equivlent fraction.

Nam[redacted]

EQUIVALENCY ARGUMENT

Find a fraction equivalent to 3/8. Use diagrams, equations, and mathematical principles to prove that the fractions are equivalent.

Make sure your argument includes a ~~claim~~, ~~evidence, warrants, reasoning and conclusion~~.

Claim - $\frac{6}{16}$ it is just dubled

evidence - $3 \times 2 = 6$
$8 \times 2 = 16$ not a hole they are both not holes

warants - $\frac{3}{8} \times \frac{2}{2} = \frac{6}{16}$

Conclusion / reasoning - The numbers are just dobled and are not hole.