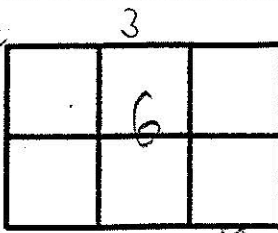


a. A small square is a square unit. What is the area of this rectangle? Explain.

4 in  
or ~~11 in~~

If you multiply  
3 x 2 you will get  
the area. if you  
multiply 2 and 2  
and 2 and 3 you will get



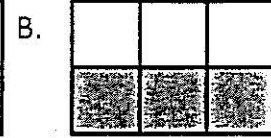
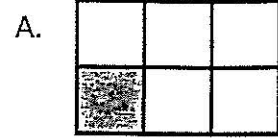
$$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$$

Student 1

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.

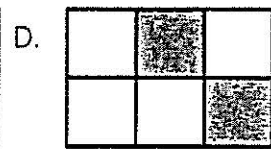
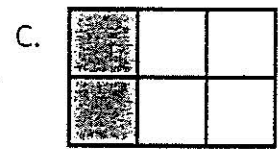
perimeter

$\frac{1}{6}$



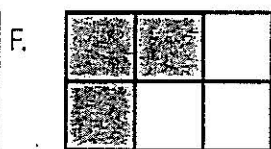
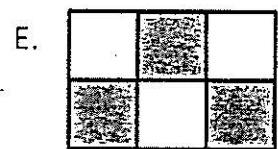
$\frac{1}{2}$

$\frac{2}{6}$



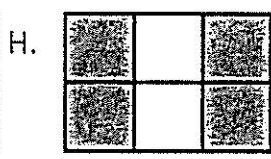
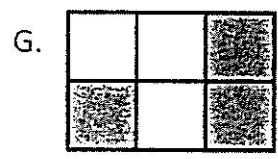
$\frac{2}{6}$

$\frac{1}{2}$



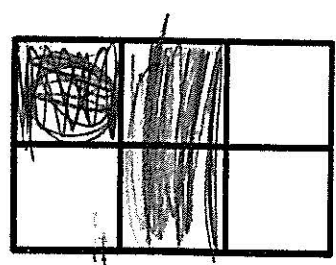
$\frac{1}{2}$

$\frac{1}{2}$

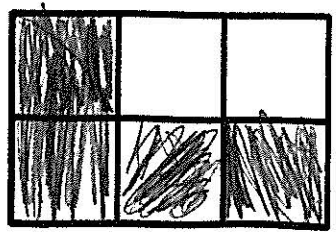


$\frac{4}{6}$

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



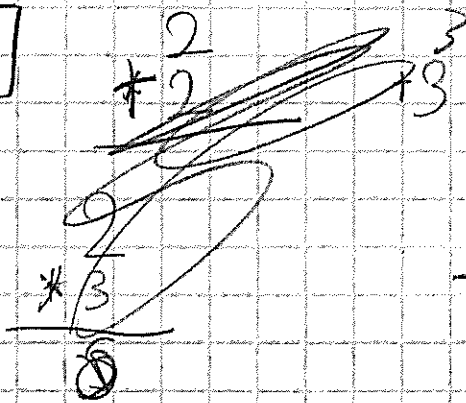
d. Shade  $\frac{2}{3}$  of the area of the rectangle in a way that is different from the rectangles above.



6/12/15

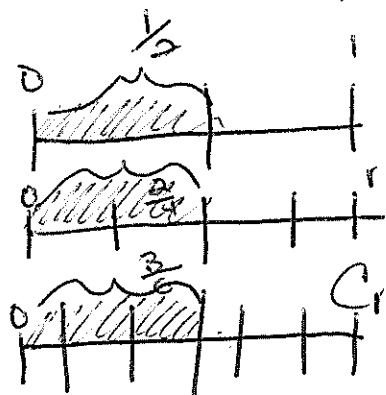
Student 1

a.



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

b. for the fraction A-H you would  
the part I shaded in ex A it's  
1 only one is shaded in and  
6 you would count the rest.

A:  $\frac{1}{6}, \frac{2}{12}, \frac{3}{8}$ B:  $\frac{1}{2}, \frac{2}{4}, \frac{3}{6}$ 

with models for each

C:  $\frac{1}{3}, \frac{2}{6}, \frac{3}{9}$ 

with models for each

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

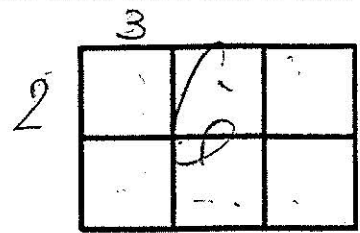
> models demonstrate understanding of comparison of equivalent wholes. Clearly labeled models

June 12, 2013

4th  
gr

Student 3

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



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.

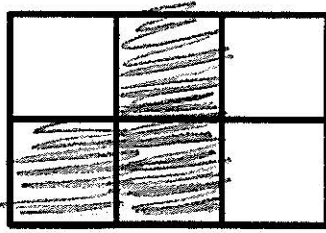
A. B.

C. D.

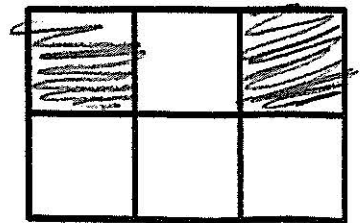
E. F.

G. H.

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.



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

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

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

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

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

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

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

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

H.  $\frac{4}{6}, \frac{8}{12}, \frac{16}{24}, \frac{32}{48}, \frac{64}{96}, \frac{128}{192}$  all of these fractions are equal because if reduced, all can come to  $\frac{2}{3}$ .

$\frac{2}{3}$