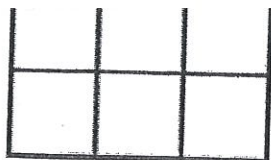


2



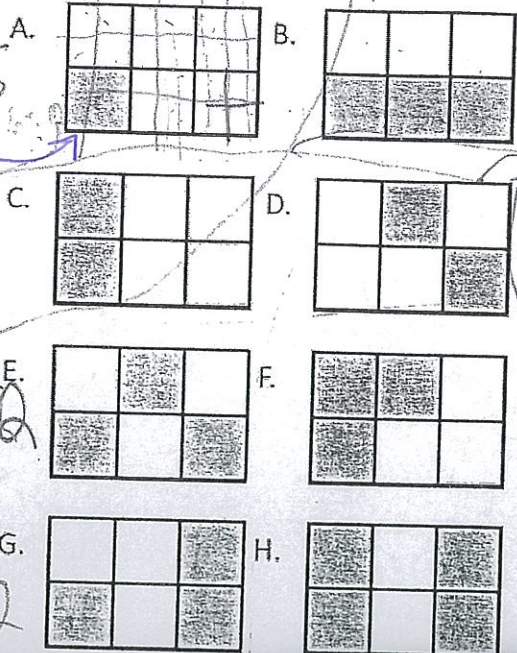
$2 \times 3 = 6$

There is six portion in the rectangle

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


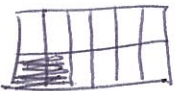
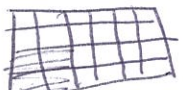
Name the fraction in as many

Handwritten notes on the left side of the page, including a large blue bracket and various fractions:  $\frac{8}{15}, \frac{4}{12}, \frac{2}{6}, \frac{1}{3}, \frac{1}{6}, \frac{1}{12}, \frac{1}{24}, \frac{1}{12}, \frac{1}{6}, \frac{1}{3}$ .



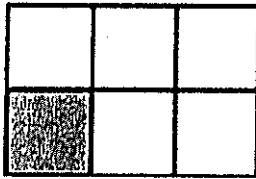
Handwritten notes on the right side of the page, including a large blue bracket and various fractions: "You can't partition because you can't partition into 4 equal parts",  $\frac{1}{6}, \frac{4}{12}, \frac{1}{8}, \frac{1}{15}, \frac{1}{6}, \frac{2}{3}, \frac{9}{6}, \frac{8}{12}, \frac{16}{24}$ .

Student:

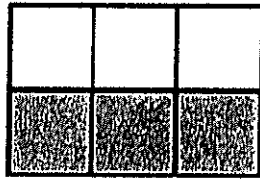
" I took the array in letter A  which is  $\frac{1}{6}$ , and broke it into 12 smaller equal parts -  which shows that  $\frac{1}{6}$  and  $\frac{2}{12}$  take up the same part of the whole. I can divide it into ~~24~~ equal parts  and now it shows that  $\frac{1}{6} = \frac{2}{12}$  which is also equal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

1/6

A.

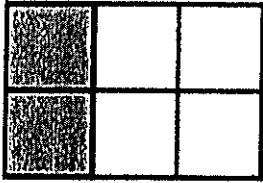


B.

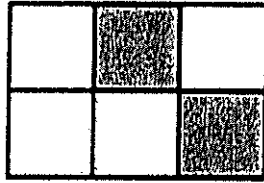


$$\frac{2}{6}$$

C.



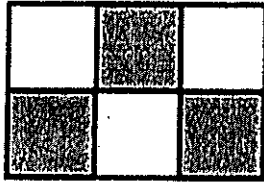
D.



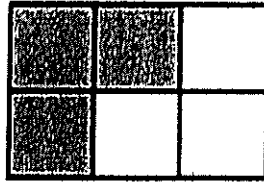
$$\frac{2}{6}$$

$$\frac{4}{6}$$

E.

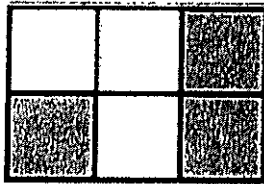


F.

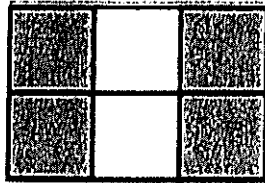


$$\frac{3}{6}$$

G.



H.



$$\frac{4}{6}$$

$$\frac{2}{6}$$

4 parts  
are blue

$$\frac{4}{6}$$

$$\frac{2}{6}$$

$$\frac{3}{6}$$

$$\frac{3}{6}$$

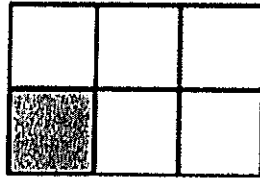
8

$$3 \div 3 = 1$$

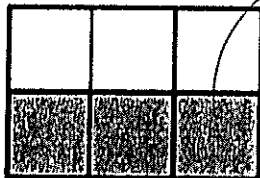
$$6 \div 3 = 2$$

$$6 \div 1 = 6$$

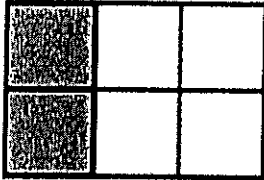
A.



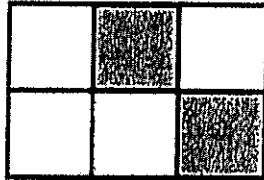
B.



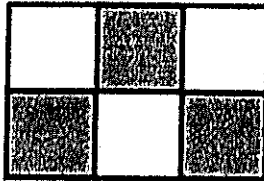
C.



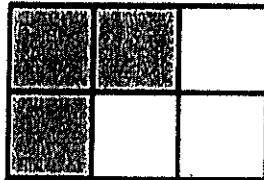
D.



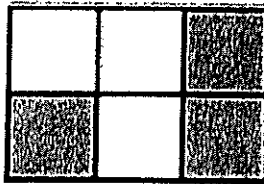
E.



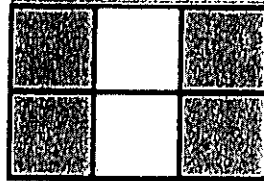
F.



G.



H.



$$3 \div 2 = 1 \frac{1}{2}$$

$$6 \div 2 = 3$$

$$6 \div 2 = 3$$

$$2 \div 3 = \frac{2}{3}$$

$$1 \div 2 = \frac{1}{2}$$

$$4 \div 6 = \frac{2}{3}$$

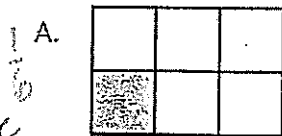
$$3 \div 6 = \frac{1}{2}$$

What fraction of the area of each rectangle is shaded?

Name the fraction in as many

Student 4

ways as you can. Explain your answers.



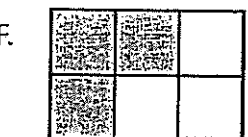
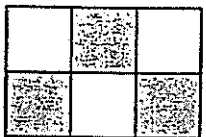
$\frac{1}{2}$  or  $\frac{3}{6}$  because 3 out of 6 is shaded

because 1 out of 6 is shaded



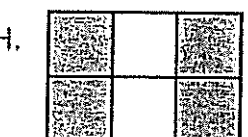
$\frac{2}{6}$  or  $\frac{1}{3}$  because 2 out of 6 is shaded

$\frac{2}{6}$  or  $\frac{1}{3}$  because 2 out of 6 is shaded



$\frac{3}{6}$  or  $\frac{1}{2}$  because 3 out of 6 is shaded

because 3 out of 6 is shaded



$\frac{4}{6}$  or  $\frac{2}{3}$  because 4 out of 6 is shaded

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

