

## Warm Up Grade 8

Feb. 22, 2021

Quiz

Thursday

Use grid paper and model

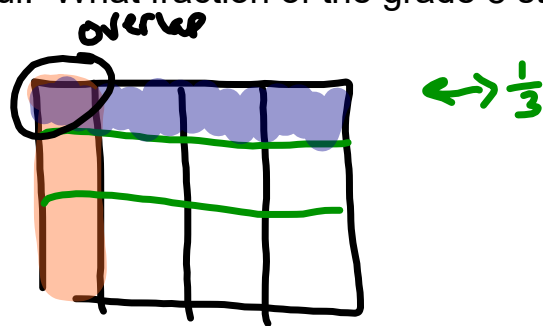
- 1) One-third of the grade 8 students tried out for a talent show. One-quarter of these students were successful. What fraction of the grade 8 students are performing at the show?

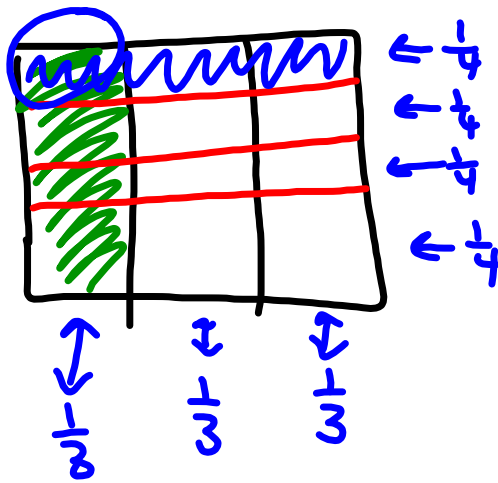
$$\frac{1}{4} \text{ of } \frac{1}{3}$$

$$\frac{1}{4} \times \frac{1}{3}$$

$$\frac{1}{12}$$

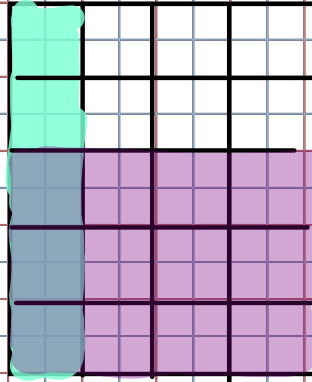
$\frac{1}{12}$  of the gr 8 students are performing.



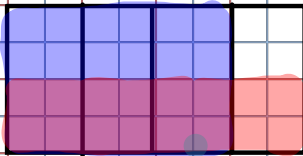


Homework Solutions

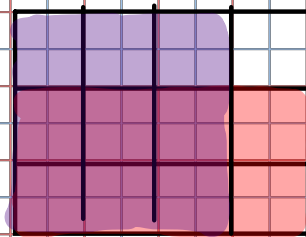
★ pg 113  
 $5\frac{2}{3} \times \frac{1}{4}$   
 $= \frac{23}{20}$



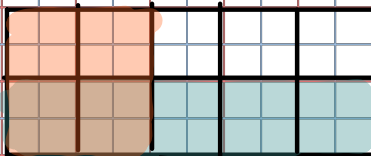
★ 6  
 $2\frac{1}{3} \times \frac{3}{4}$   
 $= \frac{13}{8}$



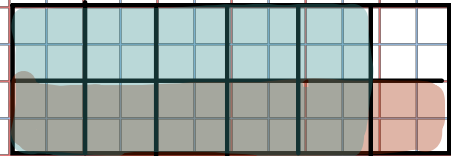
★ 5)  
 $\frac{3}{4} \times \frac{2}{3}$   
 $= \frac{6}{12}$



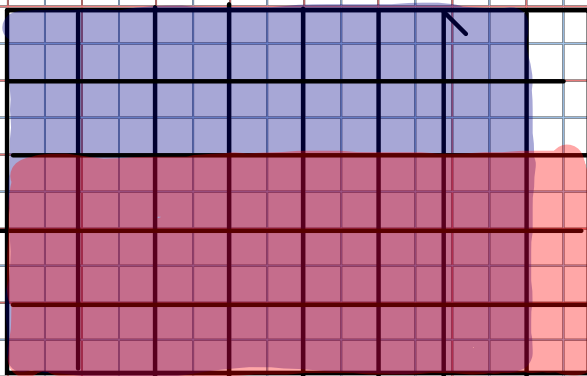
★ 3)  
 $1\frac{1}{2} \times \frac{1}{2}$   
 $= \frac{5}{4}$



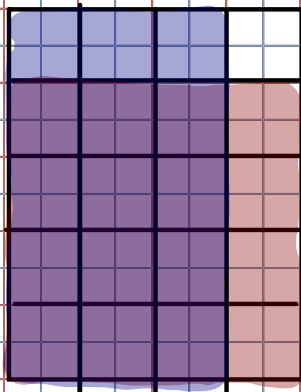
★ 1)  
 $\frac{5}{6} \times \frac{1}{2}$   
 $= \frac{5}{12}$



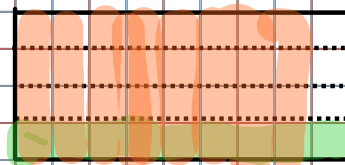
★ 2)  
 $5\frac{1}{3} \times \frac{1}{8}$   
 $= \frac{17}{24}$



★ 4)  
 $\frac{4}{5} \times \frac{3}{4}$   
 $= \frac{12}{20}$   
 $= \frac{3}{5}$

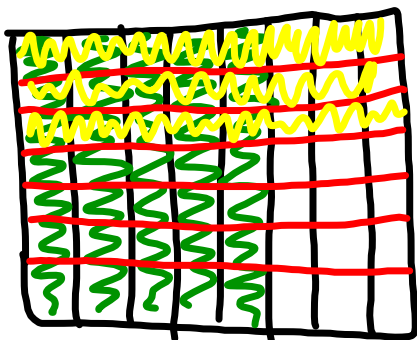


★ 2)  
 $\frac{1}{4} \times \frac{9}{6} = \frac{9}{24} = \frac{3}{8}$



$$\frac{5}{8} \times \frac{3}{7}$$

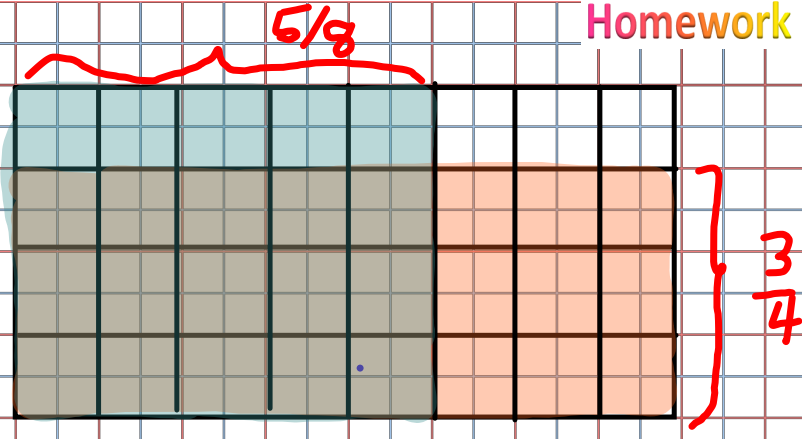
← Shade  
← cut into 7 pic  
model w Rec



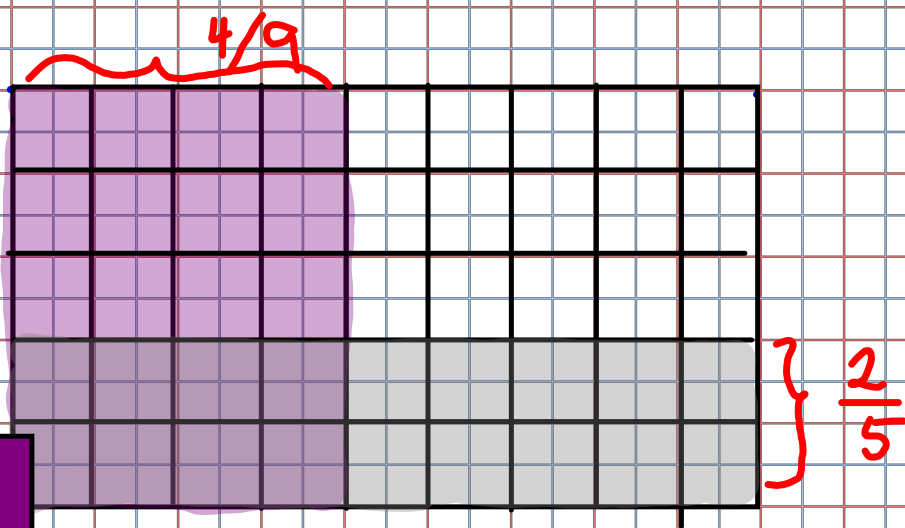
$$\frac{\text{overlap}}{\text{total}} = \frac{15}{56}$$

Homework Solutions

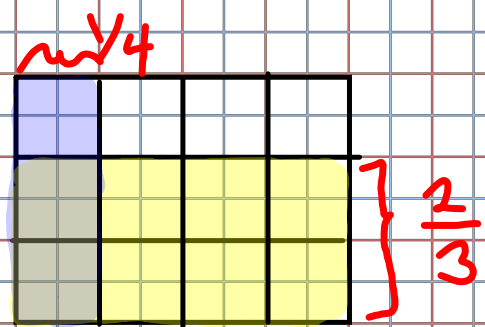
★ 8a)  $\frac{3}{4} \times \frac{5}{8}$   
 $= \frac{15}{32}$



b)  $\frac{4}{9} \times \frac{2}{3}$   
 $= \frac{8}{45}$



★ c)  $\frac{1}{4} \times \frac{2}{3}$   
 $= \frac{2}{12}$   
 $= \frac{1}{6}$

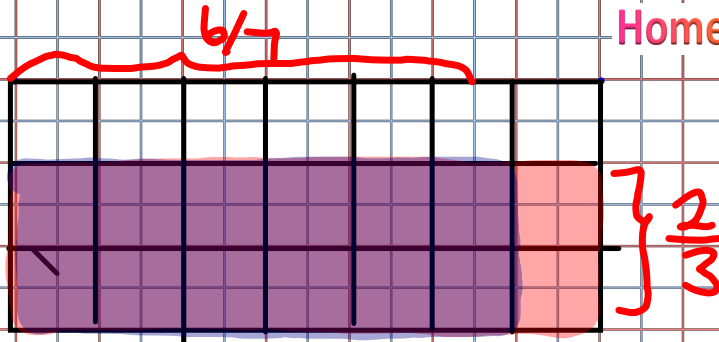


## Homework Solutions

$$d) \frac{6}{7} \times \frac{2}{3}$$

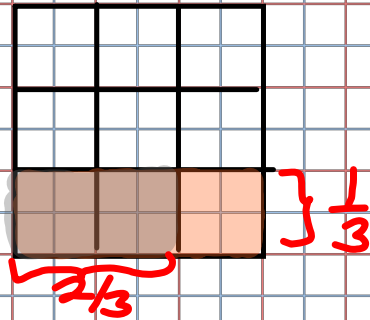
$$= \frac{12}{21}$$

$$= \frac{4}{7}$$



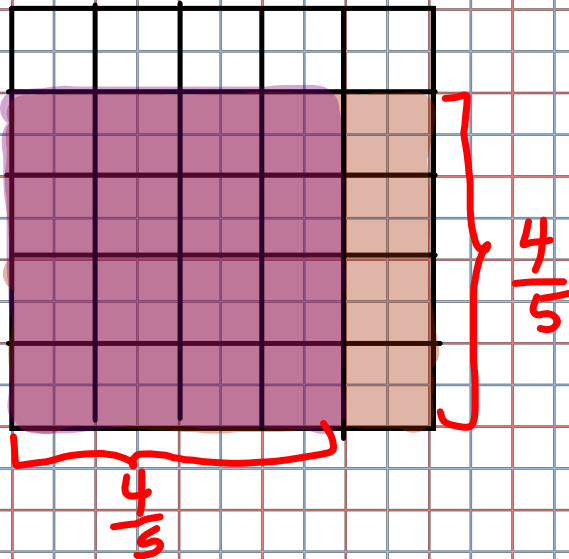
$$e) \frac{2}{3} \times \frac{1}{3}$$

$$= \frac{2}{9}$$



$$f) \frac{4}{5} \times \frac{4}{5}$$

$$= \frac{16}{25}$$



## Multiplying Fractions

When you are multiplying fractions, you simply multiply the numerators and multiply the denominators. (**Always Reduce**)  
 Either before or after

Ex.  $\frac{2}{9} \times \frac{7}{11} = \frac{2 \times 7}{9 \times 11} = \frac{14}{99}$

b)  $\frac{8}{15} \times \frac{3}{4} = \frac{24}{60} \xrightarrow{\div 2} \frac{12}{30} \xrightarrow{\div 2} \frac{6}{15} \xrightarrow{\div 3} \frac{2}{5}$

reduce as you go or at end

c)  $\frac{5}{12} \times \frac{6}{7} = \frac{5}{2} \times \frac{1}{7} = \frac{5}{14}$

or  $\frac{5}{12} \times \frac{6}{7} = \frac{30}{84} \xrightarrow{\div 6} \frac{5}{14}$

d)  $\frac{2}{3} \times \frac{15}{21} = \frac{30}{63} \xrightarrow{\div 3} \frac{10}{21}$

OR  $\frac{2}{3} \times \frac{15}{21} \xrightarrow{\div 3} \frac{2}{1} \times \frac{5}{7} = \frac{10}{7}$

Reduce as you go

$$\frac{8 \div 4}{15 \div 3} \times \frac{3 \div 3}{4 \div 4}$$

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

$$= \frac{2}{5}$$



# Multiplying Mixed Fractions

-ALWAYS Change to IMPROPER first

When you multiply mixed numbers, change them to improper fractions first, then multiply the numerators and multiply the denominators.

a)  $1 \frac{4}{7} \times 2 \frac{1}{6}$

$$= \frac{11}{7} \times \frac{13}{6}$$

$$= \frac{143}{42}$$

Stop here

$$= 3 \frac{17}{42}$$

b)  $3 \frac{3}{5} \times 4 \frac{5}{8}$

$$\frac{18 \div 2}{5} \times \frac{37}{8 \div 2}$$

$$\frac{9}{5} \times \frac{37}{4}$$

$$\frac{333}{20}$$

$$\frac{18}{5} \times \frac{37}{8}$$

$$\frac{666}{40} \div 2$$

$$= \frac{333}{20}$$

$$= 16 \frac{13}{20}$$

# Class/Homework

## Quiz Thursday

1) Model with rectangle a fraction x fraction

2) Multiply and reduce fraction x fraction with rules (a,b,c)

Page 113 # 13 <sup>ab</sup> (Model and answer)

Page 118 #6, #7, #8, #9, ~~#11, #12~~ <sup>abcd abcd a</sup>

(Don't estimate or model just multiply and reduce)

