

Warm Up Grade 8

Feb. 2, 2016

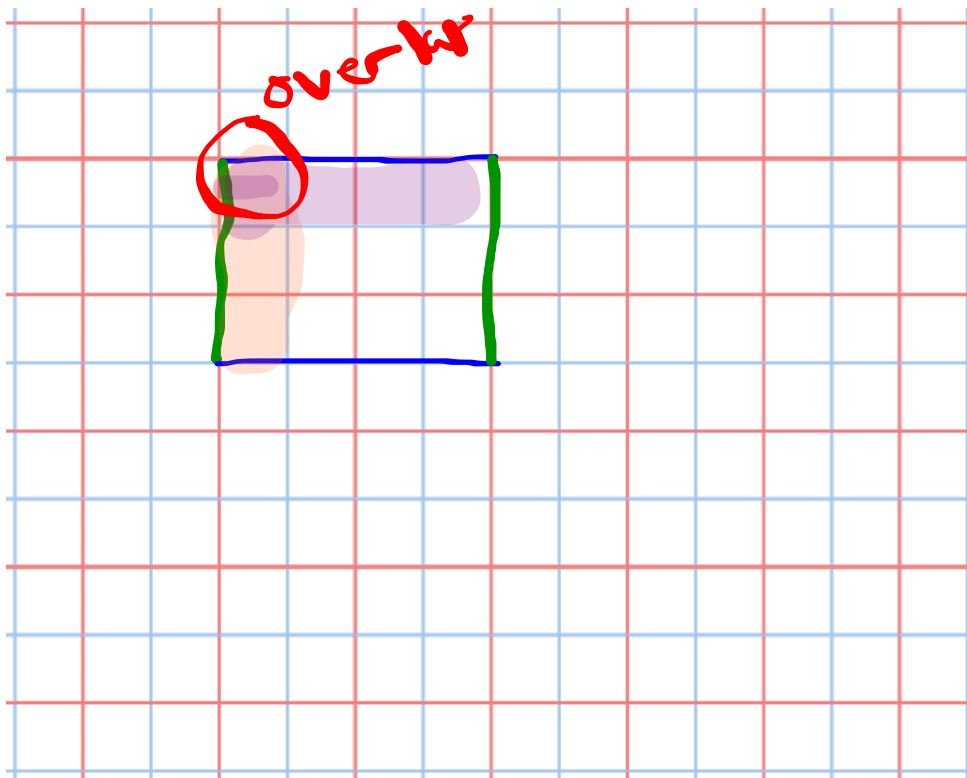
Use grid paper and model

- 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?

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

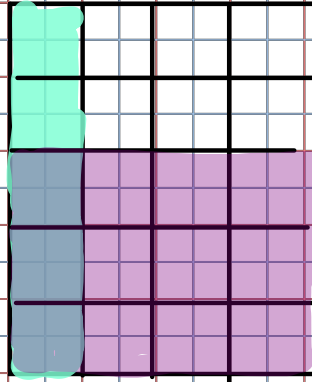
$$\frac{1}{4} \times \frac{1}{3}$$

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

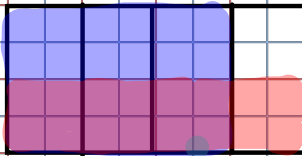


Homework Solutions

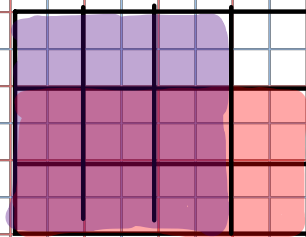
★ 5. pg 113
 $\frac{3}{5} \times \frac{1}{4}$
 $= \frac{3}{20}$



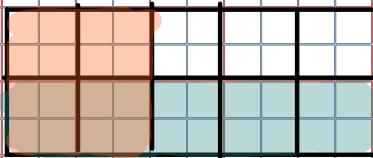
★ 6 a)
 $\frac{1}{2} \times \frac{3}{4}$
 $= \frac{3}{8}$



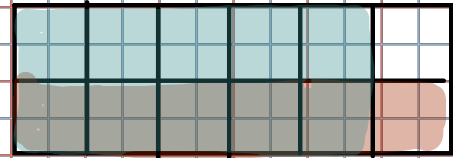
★ 6 b)
 $\frac{3}{4} \times \frac{2}{3}$
 $= \frac{6}{12} = \frac{1}{2}$



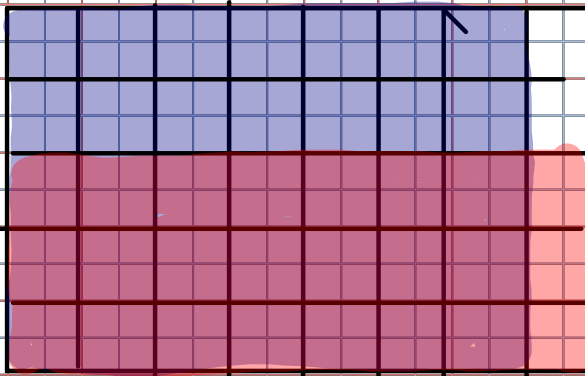
★ 7 c)
 $\frac{1}{2} \times \frac{1}{5}$
 $= \frac{1}{10} = \frac{1}{5}$



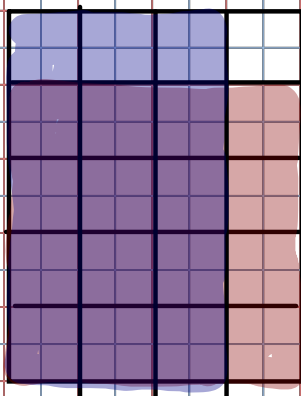
★ 7 d)
 $\frac{5}{6} \times \frac{1}{2}$
 $= \frac{5}{12}$



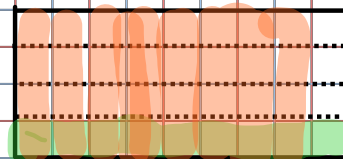
★ 8)
 $\frac{5}{8} \times \frac{7}{8}$
 $= \frac{35}{64}$



★ 9)
 $\frac{4}{5} \times \frac{3}{4}$
 $= \frac{12}{20} = \frac{3}{5}$

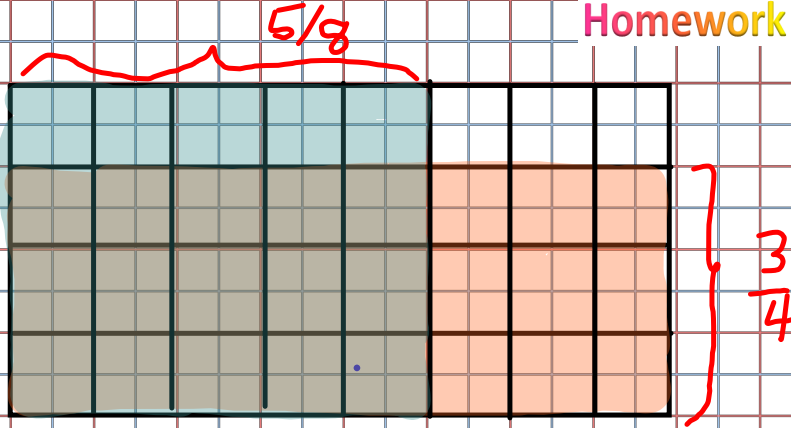


7d) $\frac{1}{4} \times \frac{8}{9} = \frac{8}{36} = \frac{2}{9}$

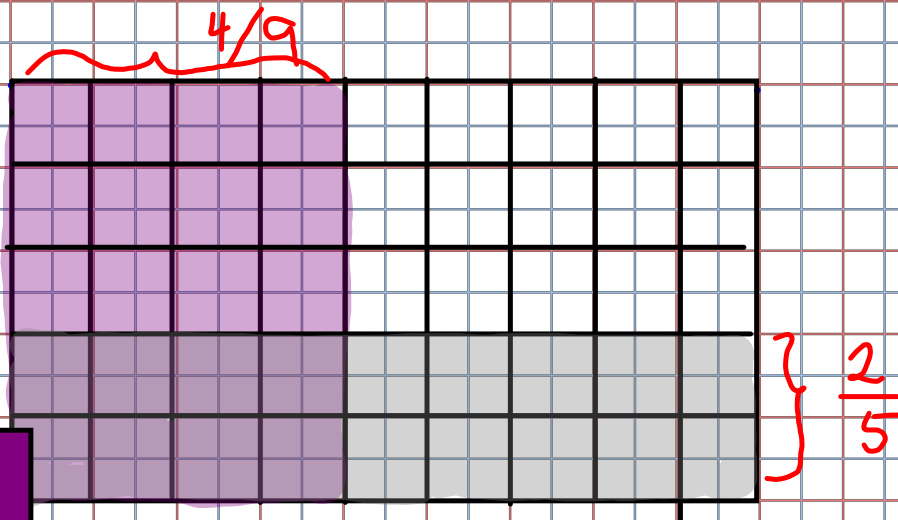


Homework Solutions

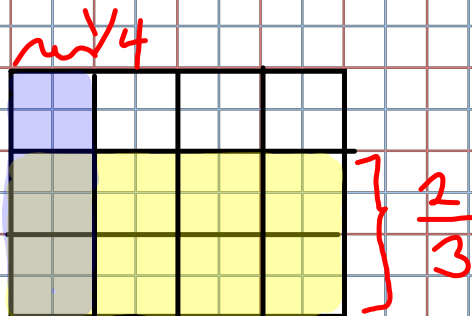
★ a) $\frac{3}{4} \times \frac{5}{8}$
 $= \frac{15}{32}$



b) $\frac{4}{9} \times \frac{2}{5}$
 $= \frac{8}{45}$

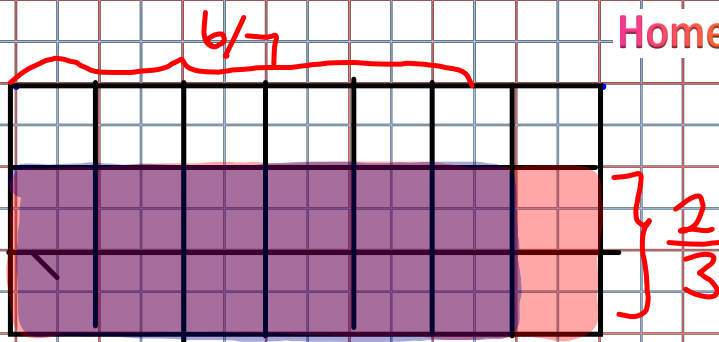


★ c) $\frac{1}{4} \times \frac{2}{3}$
 $= \frac{2}{12}$
 $= \frac{1}{6}$

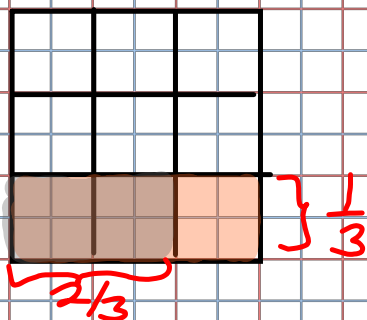


Homework Solutions

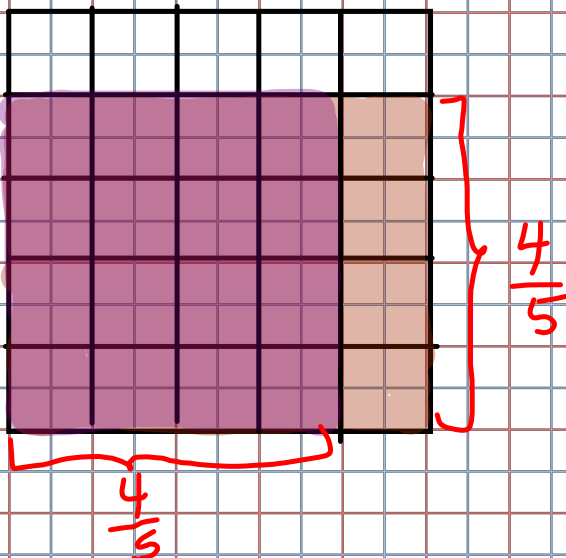
d) $\frac{6}{7} \times \frac{2}{3}$
 $= \frac{12}{21}$
 $= \frac{4}{7}$



★ 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) reduce as you go or at end

$$\frac{8}{15} \times \frac{3}{4} = \frac{\cancel{2}^1 \times 8 \times \cancel{3}^1}{5 \times \cancel{3}^1 \times \cancel{4}^1} \text{ or } \frac{24 \div 12}{60 \div 12}$$

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

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

c) $\frac{5}{12} \times \frac{6}{7} = \frac{30 \div 6}{84 \div 6} = \frac{5}{14}$

$$= \frac{5 \times \cancel{6}^1}{\cancel{2}^1 \times 12 \times 7}$$

$$= \frac{5 \times 1}{2 \times 7}$$

$$= \frac{5}{14}$$

d) $\frac{2}{3} \times \frac{15^5}{21} = \frac{30 \div 3}{63 \div 3} = \frac{10}{21}$

$$\frac{\cancel{2}^1 \times 5}{1 \times 21}$$

$$= \frac{10}{21}$$

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.

$$\begin{aligned}
 \text{a) } & 1 \frac{4}{7} \times 2 \frac{1}{6} \\
 & = \frac{11}{7} \times \frac{13}{6} \\
 & = \frac{11 \times 13}{7 \times 6} \\
 & = \frac{143}{42}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } & 3 \frac{3}{5} \times 4 \frac{5}{8} \\
 & = \frac{\cancel{18}^9}{5} \times \frac{\cancel{37}_4}{8} \\
 & = \frac{9 \times 37}{5 \times 4} \\
 & = \frac{333}{20} = 15 \frac{13}{20}
 \end{aligned}$$

Class/Homework

Page 113 # 13 (Model and answer)

Page 118 #6, #7, #8, #9, #11, #12a

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

