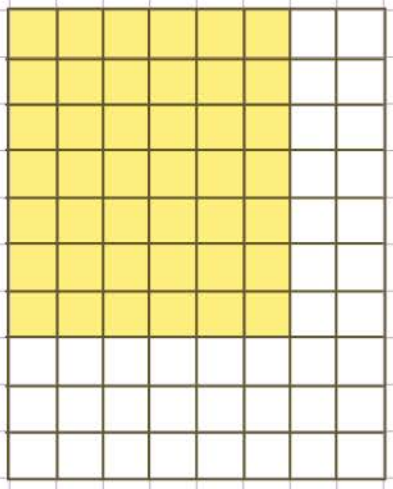
Name: ..... Class: .....

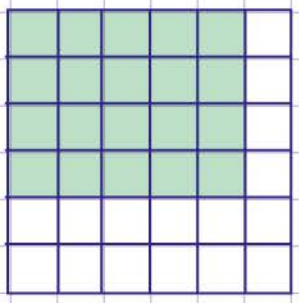
Multiply fractions to find area

Find the area of the the shaded regions in the following models.

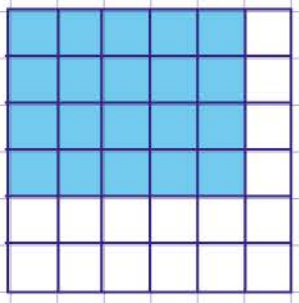
a.



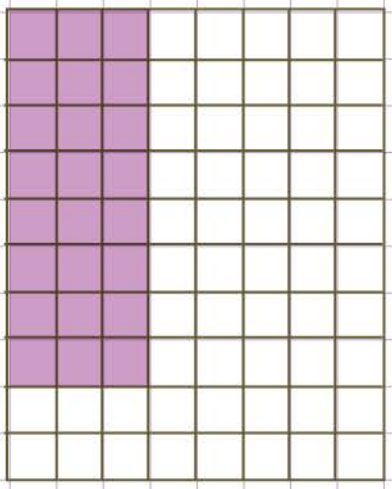
b.



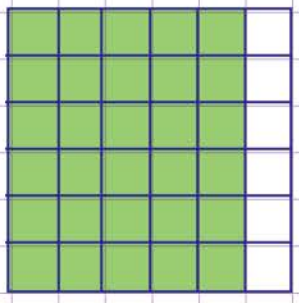
c.



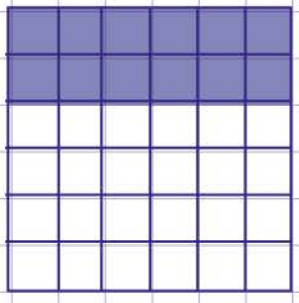
d.



e.



f.



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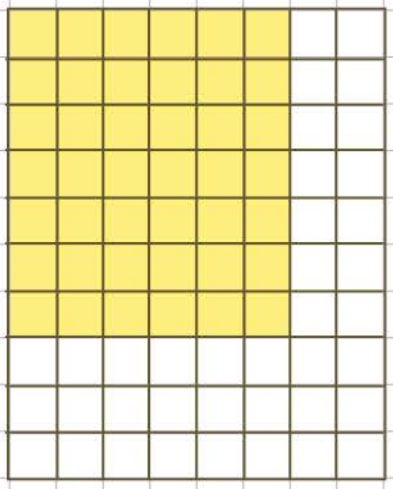
Solution

Name: ..... Class: .....

Multiply fractions to find area

Find the area of the the shaded regions in the following models.

a.



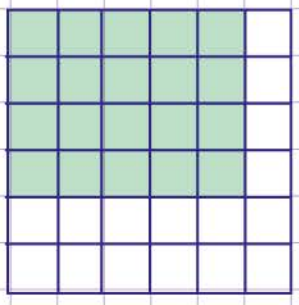
Let's first of all find the length and width of the shaded rectangle.
The model has a length of 8 small squares and 6 of them are shaded.
So, the length = $\frac{6}{8}$ units.
Also, the model has a width of 10 small squares and 7 of them are shaded.
So, the width = $\frac{7}{10}$ units.
Finally, area of shaded region = Length x Width.

$= \frac{6}{8}$ units x $\frac{7}{10}$ units

$= \frac{6 \times 7}{8 \times 10} = \frac{42}{80}$ Square units $\longrightarrow \frac{21 \times 2}{40 \times 2} = \frac{21}{40}$

Therefore, the area of the shaded rectangle is $\frac{21}{40}$ square units.

b.



Let's first of all find the length and width of the shaded rectangle.
The model has a length of 6 small squares and 4 of them are shaded.
So, the length = $\frac{4}{6}$ units.
Also, the model has a width of 6 small squares and 5 of them are shaded.
So, the width = $\frac{5}{6}$ units.
Finally, area of shaded region = Length x Width.

$= \frac{4}{6}$ units x $\frac{5}{6}$ units

$= \frac{4 \times 5}{6 \times 6} = \frac{20}{36}$ Square units $\longrightarrow \frac{5 \times 4}{9 \times 4} = \frac{5}{9}$

Therefore, the area of the shaded rectangle is $\frac{5}{9}$ square units.

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