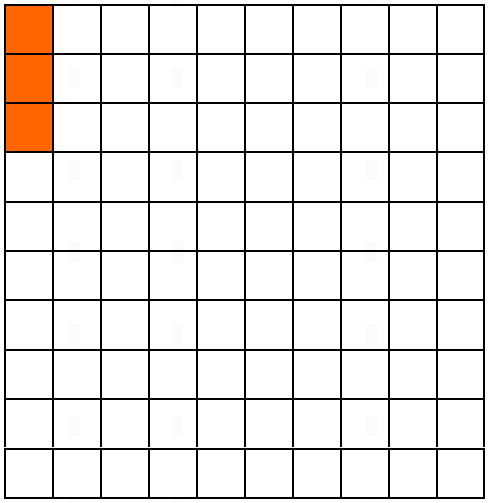
Fraction Decimal Equivalents

Use What You've Learned
Answers and Explanations

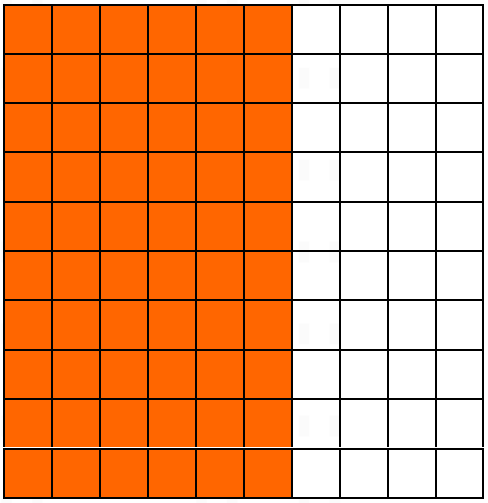
Represent each fraction by shading the grid. Then write the fraction as a decimal.
One way to shade each grid is shown below.

1.



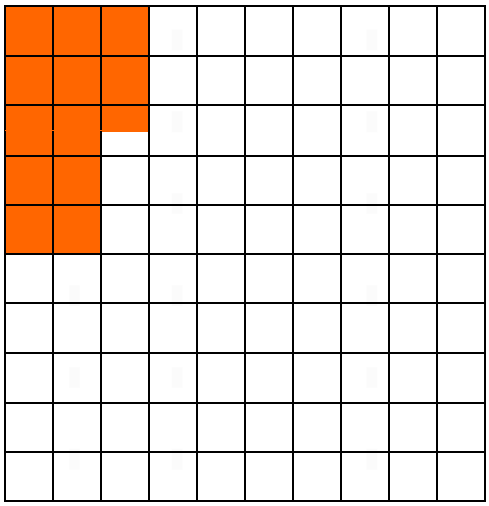
$\frac{3}{100} = \underline{0.03}$

2.



$\frac{3}{5} = \underline{0.6}$

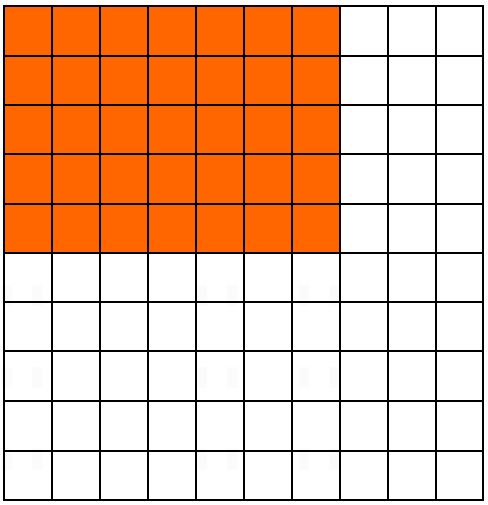
3.



$\frac{1}{8} = \underline{0.125}$

$\frac{1}{4}$ of the grid is 25 squares. Since $\frac{1}{8}$ is half of $\frac{1}{4}$, $12\frac{1}{2}$ squares are shaded. $12\frac{1}{2}$ hundredths equals $\frac{125}{1000}$, so $\frac{1}{8} = 0.125$.

4.



$\frac{7}{20} = \underline{0.35}$

One column is $\frac{1}{10}$ of the grid, so $\frac{1}{20}$ is half a column. Seven half columns or 35 squares are shaded.

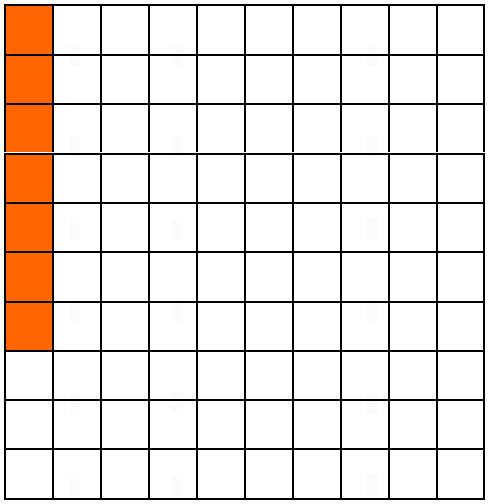
Fraction Decimal Equivalents

Use What You've Learned
Answers and Explanations

Represent each decimal by shading the grid. Then write the decimal as a fraction in simplest terms.

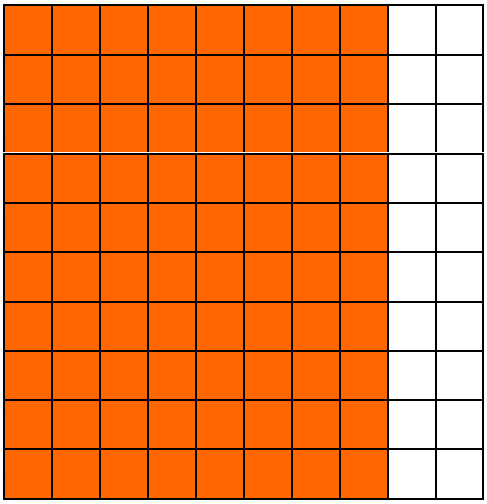
One way to shade each grid is shown below.

5.



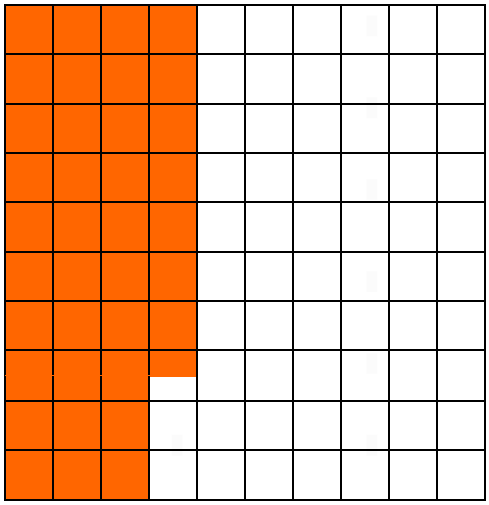
0.07 = $\frac{7}{100}$

6.



0.8 = $\frac{8}{10}$ or $\frac{4}{5}$

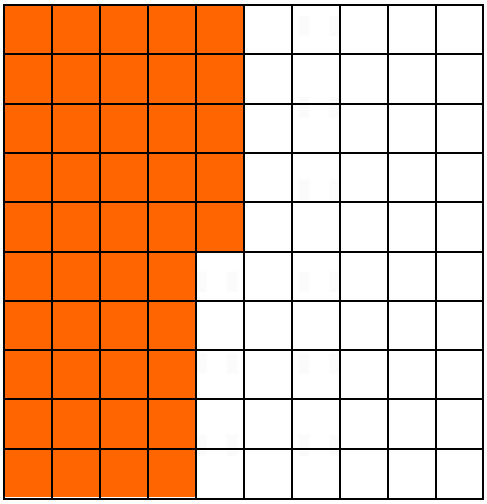
7.



0.375 = $\frac{3}{8}$

$\frac{1}{4}$ or $\frac{2}{8}$ of the grid is 25 squares and $\frac{1}{8}$ of grid is $12\frac{1}{2}$ squares, so $37\frac{1}{2}$ squares is $\frac{3}{8}$ of the grid.

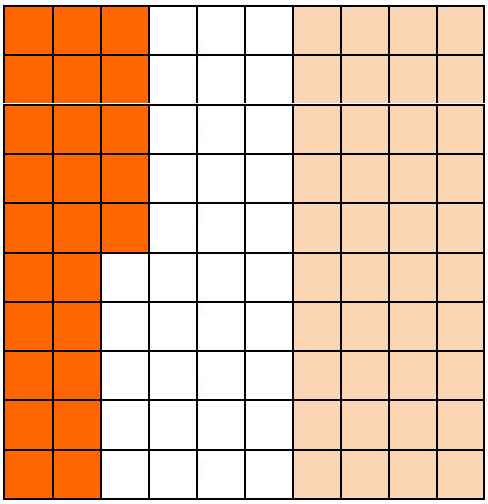
8.



0.45 = $\frac{9}{20}$

One column is $\frac{1}{10}$ of the grid, so half a column is $\frac{1}{20}$ of the grid. Nine half columns is 45 squares.

9. On Wednesday, it rained $\frac{1}{4}$ inch. On Thursday, it rained 0.4 inch. Shade in $\frac{1}{4}$ of the grid below. Shade in 0.4 on the same grid in a different color. Compare the two shaded areas. Which is larger? How do you know for sure?

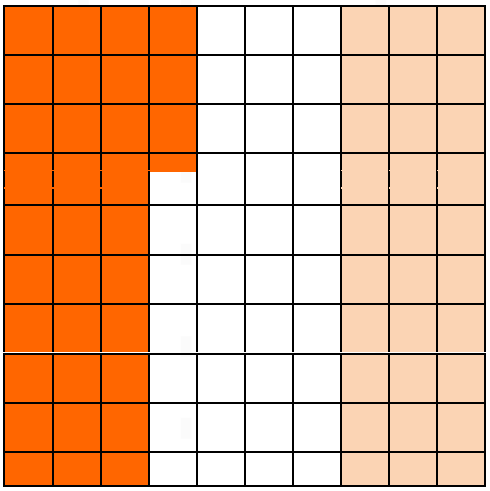


You can represent one fourth as two columns and five squares, or as five rows of five squares. Either way, one fourth of the grid is 25 squares.

You can represent four tenths as four columns, or 40 squares. Four tenths is equivalent to 40 hundredths.

Forty squares are more that 25 squares so four tenths is greater than one fourth.

10. One third of the population of a country is Hispanic. Three tenths of the population of that same country is German. Shade one third of the following grid. Is that exact? Now shade in three tenths of the grid using a different color. Which is larger, one third or three tenths? How do you know?



You can represent one third by shading in three columns and one third of another column. Since you cannot evenly divide the 10 squares in the column by three, you need to approximate the squares shaded in the one third of a column. You can also represent one third by shading in 33 whole squares and one third of another square. Shading one third of the grid is not exact.

When you shade in three tenths, you shade in three complete columns or 30 squares.

One third is greater than three tenths.