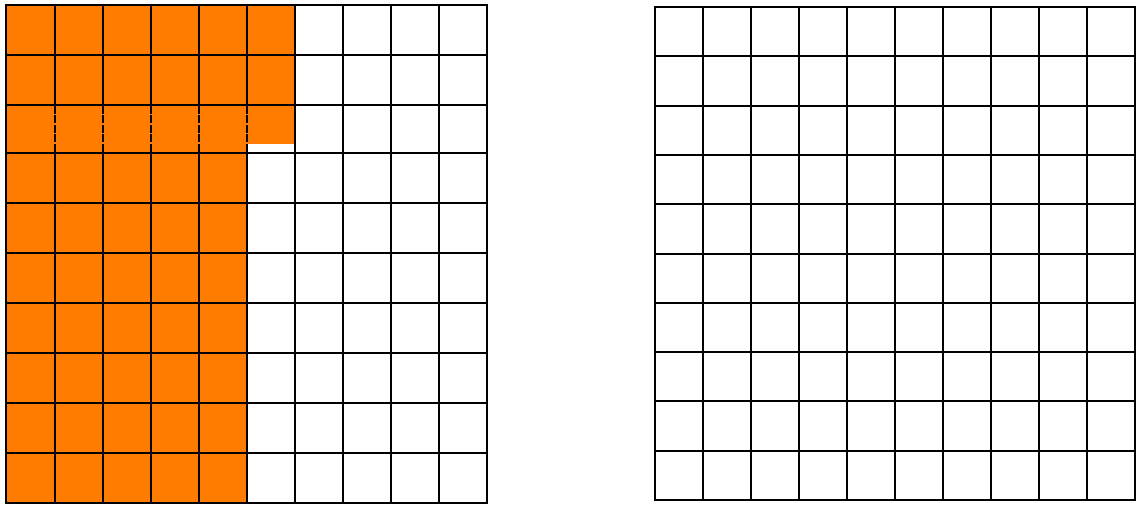
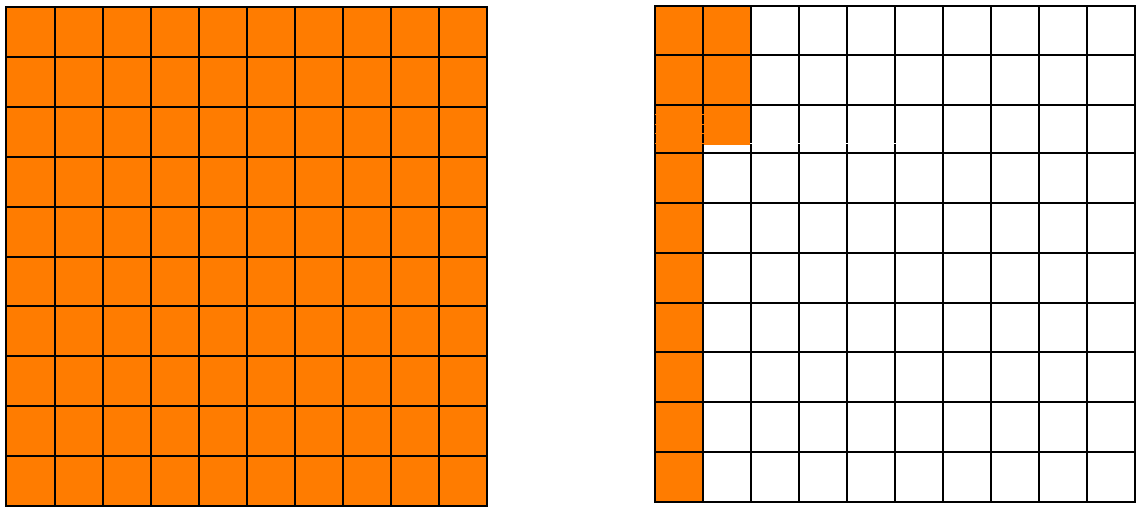
Understanding Decimals
Extend Your Learning
Answers and Explanations

1. In 1975, the price of one gallon of gas was \$0.529 or \$0.52$\frac{9}{10}$. Represent this amount by shading the following grids. Each 10-by-10 grid represents one.



2. In 1980, the price of one gallon of gas was \$1.129 or \$1.12$\frac{9}{10}$. Represent this amount by shading the following grids. Each 10-by-10 grid represents one.



3. What does the 9 in each price (\$0.52**9** and \$1.12**9**) mean? What fraction of one dollar does the 9 represent? What fraction of one penny does the 9 represent?

   One small square on the grid represents one hundredth of a dollar, or one penny. If you divide each of the 100 small squares into 10 equal parts, you get 10 x 100, or 1000 equal parts. The 9 represents nine thousandths of one dollar, or nine tenths of a penny.

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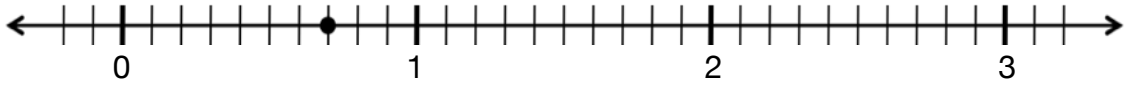
Write the decimal and the fraction that the dot represents on each number line.

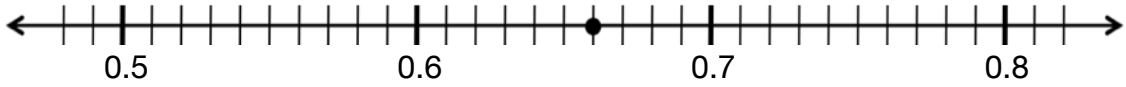
4.



Decimal: 0.7 Each interval is equal to 0.1, so the marks between 0 and 1 represent 0.1, 0.2, 0.3, 0.4, etc.

Fraction: $\frac{7}{10}$

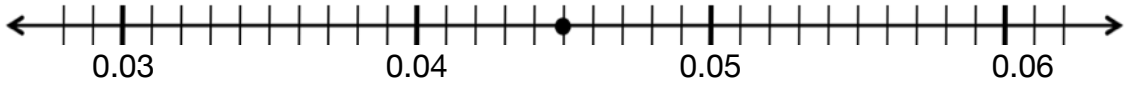
5.



Decimal: 0.66 Each interval is equal to 0.01, so the marks between 0.6 and 0.7 represent 0.61, 0.62, 0.63, etc.

Fraction: $\frac{66}{100}$ or $\frac{33}{50}$

6.



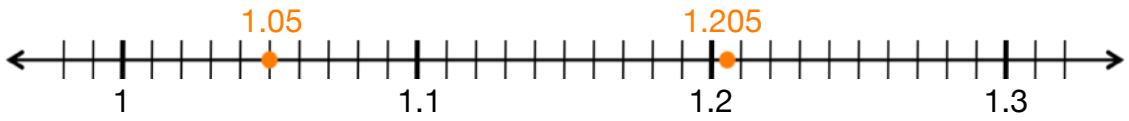
Decimal: 0.045 Each interval is equal to 0.001, so the marks between 0.04 and 0.05 represent 0.041, 0.042, 0.043, etc.

Fraction: $\frac{45}{1000}$ or $\frac{9}{200}$

Place a dot on the number line to represent the following numbers.

7. 1.05 Each interval is equal to 0.01, so the marks between 1 and 1.1 represent 1.01, 1.02, 1.03, etc. It may help to think of 1 as 1.00, and 1.1 as 1.10. 1.05 is halfway between 1.00 and 1.10.

8. 1.205 The marks between 1.2 and 1.3 represent 1.21, 1.22, 1.23, etc. It may help to think of 1.2 as 1.200, and 1.21 as 1.210. 1.205 is halfway between 1.200 and 1.210.



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