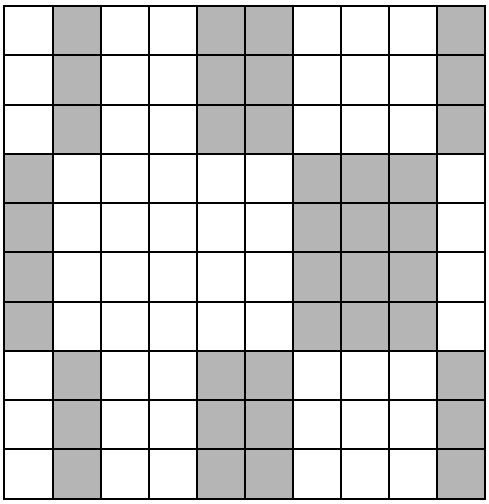
Understanding Decimals

Use What You've Learned
Answers and Explanations

The shaded portion of each of the following grids represents the weight of one diamond in carats. Write the weight of each diamond as a fraction and as a decimal. Each 10-by-10 grid represents one carat.

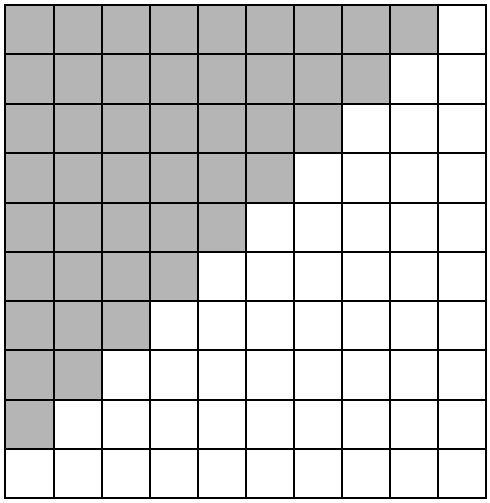
1. Fraction: $\frac{40}{100}$, $\frac{4}{10}$, or $\frac{2}{5}$

   Decimal: 0.4 or 0.40



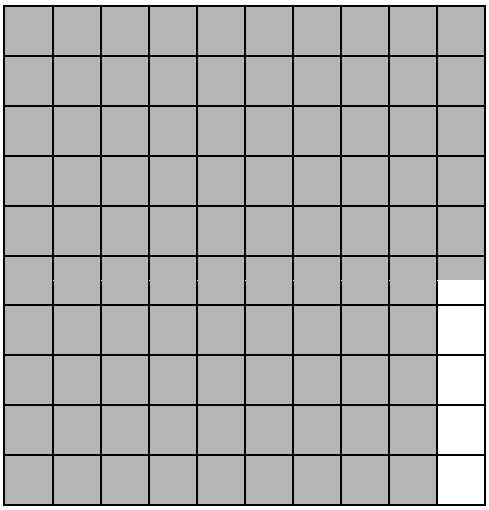
2. Fraction: $\frac{45}{100}$ or $\frac{9}{20}$

   Decimal: 0.45



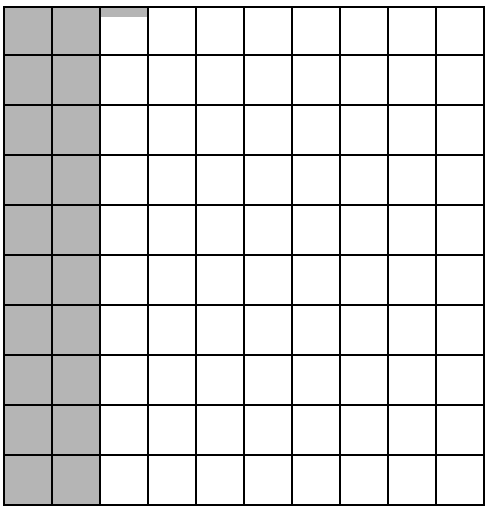
3. Fraction: $\frac{955}{1000}$ or $\frac{191}{200}$

   Decimal: 0.955



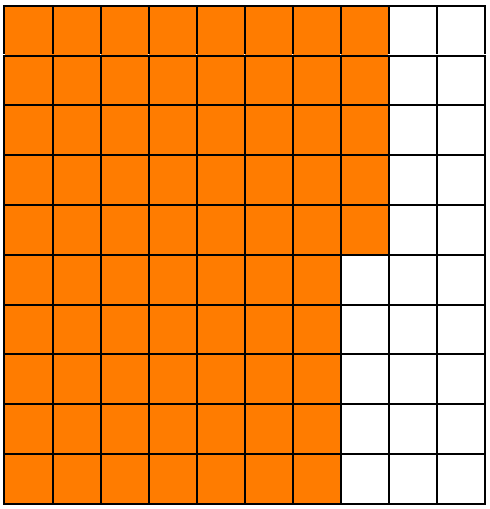
4. Fraction: Approximately $\frac{202}{1000}$ or $\frac{101}{500}$

   Decimal: Approximately 0.202



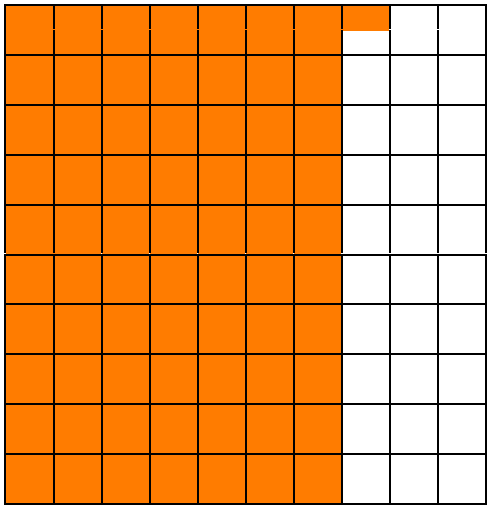
The following problems give the diameter of different kinds of coins in inches. Represent each number by shading the grid and writing the number as a fraction.

5. Penny: 0.750 inches



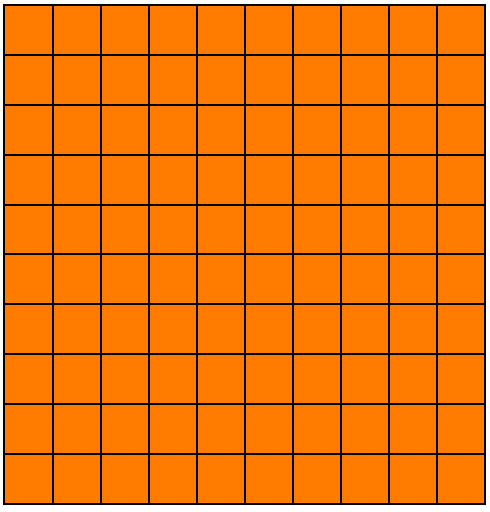
Fraction: $\frac{750}{1000}$ or $\frac{3}{4}$

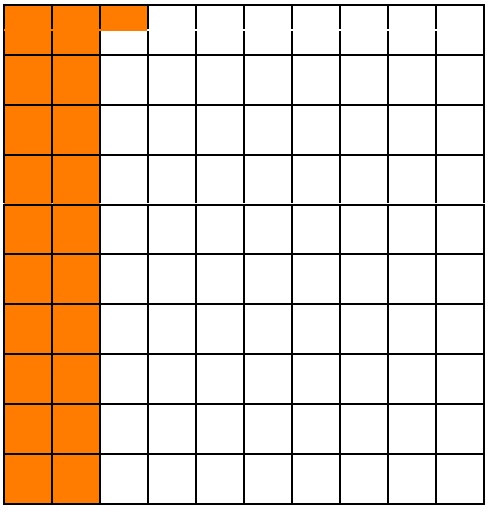
6. Dime: 0.705 inches



Fraction: $\frac{705}{1000}$ or $\frac{141}{200}$

7. Half dollar: 1.205 inches





Fraction: $\frac{1205}{1000}$, $1\frac{205}{1000}$, or $1\frac{41}{200}$

8. The diameter of the Presidential dollar is one and forty-three thousandths inches. Write this number as a fraction and as a decimal.

   Fraction: $\frac{1043}{1000}$ or $1\frac{43}{1000}$ Decimal: 1.043

9. Use the following clues to determine the diameter of a nickel.

   The diameter is less than one inch.

   The sum of the digits in hundredths place and thousandths place equals the digit in the tenths place.

   There is a five in the thousandths place.

   The digit in the tenths place is even.

   The digit in the hundredths place is not one.

   What is the diameter of a nickel in inches? 0.835 inches

10. How do you read the answer to problem 9? Write the number in words.

    eight hundred thirty-five thousandths