

**STUDY LINK**  
**9•2**

# Coins as Percents of \$1



1. How many pennies in \$1? \_\_\_\_\_ What fraction of \$1 is 1 penny? \_\_\_\_\_

Write the decimal that shows what part of \$1 is 1 penny. \_\_\_\_\_

What percent of \$1 is 1 penny? \_\_\_\_\_%

2. How many nickels in \$1? \_\_\_\_\_ What fraction of \$1 is 1 nickel? \_\_\_\_\_

Write the decimal that shows what part of \$1 is 1 nickel. \_\_\_\_\_

What percent of \$1 is 1 nickel? \_\_\_\_\_%

3. How many dimes in \$1? \_\_\_\_\_ What fraction of \$1 is 1 dime? \_\_\_\_\_

Write the decimal that shows what part of \$1 is 1 dime. \_\_\_\_\_

What percent of \$1 is 1 dime? \_\_\_\_\_%

4. How many quarters in \$1? \_\_\_\_\_ What fraction of \$1 is 1 quarter? \_\_\_\_\_

Write the decimal that shows what part of \$1 is 1 quarter. \_\_\_\_\_

What percent of \$1 is 1 quarter? \_\_\_\_\_%

5. How many half-dollars in \$1? \_\_\_\_\_ What fraction of \$1 is 1 half-dollar? \_\_\_\_\_

Write the decimal that shows what part of \$1 is 1 half-dollar. \_\_\_\_\_

What percent of \$1 is 1 half-dollar? \_\_\_\_\_%

6. Three quarters (75¢) is  $\frac{3}{4}$  of \$1.

Write the decimal. \_\_\_\_\_

What percent of \$1 is

3 quarters? \_\_\_\_\_%

7. Two dimes (20¢) is  $\frac{2}{10}$  of \$1.

Write the decimal. \_\_\_\_\_

What percent of \$1 is

2 dimes? \_\_\_\_\_%

**Practice**

8. \_\_\_\_\_ =  $748 * 6$     9.  $51 * 90 =$  \_\_\_\_\_    10. \_\_\_\_\_ =  $28 * 903$



1. Use your calculator to rename each fraction below as a decimal.

$\frac{1}{2}$	0	.	5					
$\frac{1}{3}$	0	.	3	3	3	3	3	3
$\frac{1}{4}$								
$\frac{1}{5}$								
$\frac{1}{6}$								
$\frac{1}{7}$								
$\frac{1}{8}$								
$\frac{1}{9}$								
$\frac{1}{10}$								
$\frac{1}{11}$								
$\frac{1}{12}$								
$\frac{1}{13}$								

$\frac{1}{14}$								
$\frac{1}{15}$								
$\frac{1}{16}$								
$\frac{1}{17}$								
$\frac{1}{18}$								
$\frac{1}{19}$								
$\frac{1}{20}$								
$\frac{1}{21}$								
$\frac{1}{22}$								
$\frac{1}{23}$								
$\frac{1}{24}$								
$\frac{1}{25}$								

2. Make up some of your own.

$\frac{1}{73}$	0	.	0	1	3	6	9	8
$\frac{1}{}$								
$\frac{1}{}$								

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

### Practice

3.  $6 \overline{)96} = \underline{\hspace{2cm}}$

4.  $91 \div 5 = \underline{\hspace{2cm}}$

5.  $\underline{\hspace{2cm}} = 864 \div 8$

6.  $575 \div 7 = \underline{\hspace{2cm}}$

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# Fractions and Decimals to Percents



Do NOT use a calculator to convert these fractions to percents.

On the back of this page, show your work for Problems 3–6.

1.  $\frac{34}{100} = \underline{\hspace{2cm}}\%$

2.  $\frac{67}{100} = \underline{\hspace{2cm}}\%$

3.  $\frac{42}{50} = \underline{\hspace{2cm}}\%$

4.  $\frac{13}{25} = \underline{\hspace{2cm}}\%$

5.  $\frac{17}{20} = \underline{\hspace{2cm}}\%$

6.  $\frac{25}{125} = \underline{\hspace{2cm}}\%$

Use a calculator to convert these fractions to percents.

7.  $\frac{23}{92} = \underline{\hspace{2cm}}\%$

8.  $\frac{12}{40} = \underline{\hspace{2cm}}\%$

9.  $\frac{20}{32} = \underline{\hspace{2cm}}\%$

10.  $\frac{49}{70} = \underline{\hspace{2cm}}\%$

11.  $\frac{60}{400} = \underline{\hspace{2cm}}\%$

12.  $\frac{21}{56} = \underline{\hspace{2cm}}\%$

13. Describe how you used your calculator to convert the fractions in Problems 7–12 to percents.

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Do NOT use a calculator to convert these decimals to percents.

14.  $0.86 = \underline{\hspace{2cm}}\%$

15.  $0.03 = \underline{\hspace{2cm}}\%$

16.  $0.140 = \underline{\hspace{2cm}}\%$

17.  $0.835 = \underline{\hspace{2cm}}\%$

**Practice**

Order the fractions from smallest to largest.

18.  $\frac{7}{16}, \frac{7}{8}, \frac{7}{12}, \frac{7}{9}$  \_\_\_\_\_

19.  $\frac{7}{15}, \frac{3}{15}, \frac{8}{15}, \frac{4}{15}$  \_\_\_\_\_

20.  $\frac{5}{9}, \frac{15}{16}, \frac{1}{4}, \frac{9}{10}$  \_\_\_\_\_

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# Renaming Fractions as Percents



In 2001, there were about 2,317,000 marriages in the United States.  
 The table below shows the approximate number of marriages each month.

- Use a calculator to find the percent of the total number of marriages that occurred each month. Round the answers to the nearest whole-number percent.

Month	Approximate Number of Marriages	Approximate Percent of Total Marriages
January	147,000	6%
February	159,000	
March	166,000	
April	166,000	
May	189,000	
June	237,000	
July	244,000	
August	225,000	
September	224,000	
October	217,000	
November	191,000	
December	152,000	

Source: U.S. Department of Health and Human Services

- According to the table, what is the most popular month for a wedding? \_\_\_\_\_  
 What is the least popular month for a wedding? \_\_\_\_\_

- Describe how you used your calculator to find the percent for each month.

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**Practice**

Name all the factors of each number.

4. 63 \_\_\_\_\_

5. 28 \_\_\_\_\_

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# Use Percents to Compare Fractions



1. The girls' varsity basketball team won 8 of the 10 games it played. The junior varsity team won 6 of 8 games. Which team has the better record? Explain your reasoning.

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2. Complete the table of shots taken (not including free throws) during a game. Calculate the percent of shots made to the nearest whole percent.

Player	Shots Made	Shots Missed	Total Shots	$\frac{\text{Shots Made}}{\text{Total Shots}}$	% of Shots Made
1	5	12	17	$\frac{5}{17}$	29%
2	5	6			
3	3	0			
4	9	2			
5	4	3			
6	11	5			
7	6	4			
8	1	1			

3. The basketball game is tied. Your team has the ball. There is only enough time for one more shot. Based only on the information in the table, which player would you choose to take the shot? Why?

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**Practice**

4.  $\frac{1}{3} + \frac{1}{6} =$  \_\_\_\_\_    5. \_\_\_\_\_  $= \frac{3}{4} - \frac{1}{2}$     6. \_\_\_\_\_  $= \frac{7}{10} + \frac{1}{5}$     7.  $\frac{5}{8} - \frac{1}{4} =$  \_\_\_\_\_

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## Least-Populated Countries



The table below shows the approximate population for the 10 least-populated countries in the world. Use the data to estimate answers to the problems.

Country	Population
Vatican City	900
Tuvalu	11,000
Nauru	13,000
Palau	20,000
San Marino	28,000
Monaco	32,000
Liechtenstein	33,000
St. Kitts and Nevis	39,000
Antigua and Barbuda	68,000
Dominica	69,000

Source: *Top Ten of Everything 2004*

- The population of Liechtenstein is about \_\_\_\_\_% of the population of Dominica.
- What country's population is about 33% of Liechtenstein's population? \_\_\_\_\_
- The population of Vatican City is about \_\_\_\_\_% of the population of Palau.
- The population of the 10 countries listed is 314,900. What 3 country populations together equal about 50% of that total?  
\_\_\_\_\_

- The population of St. Kitts and Nevis is about \_\_\_\_\_% of Nauru's population.

**Practice**

6.  $27 * 4 =$  \_\_\_\_\_

7. \_\_\_\_\_ =  $508 * 8$

8. \_\_\_\_\_ =  $63 * 86$

9.  $849 * 52 =$  \_\_\_\_\_

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# Multiplying Decimals



For each problem below, the multiplication has been done correctly, but the decimal point is missing in the answer. Correctly place the decimal point in the answer.

1.  $6 * 4.3 = 258$

2.  $72 * 6.8 = 4896$

3.  $0.96 * 47 = 4512$

4.  $5.12 * 22 = 11264$

5.  $8,457 * 9.8 = 828786$

6.  $0.04 * 140 = 56$

7. Explain how you decided where to place the decimal point in Problem 4.

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**Try This**

Multiply. Show your work.

8.  $5.9 * 36 = \underline{\hspace{2cm}}$

9.  $0.46 * 84 = \underline{\hspace{2cm}}$

10.  $\underline{\hspace{2cm}} = 7.21 * 53$

**Practice**

11.  $\underline{\hspace{2cm}} = 96 \div 6$

12.  $4 \overline{)67} = \underline{\hspace{2cm}}$

13.  $\underline{\hspace{2cm}} = 411 / 3$

14.  $9 \overline{)903} = \underline{\hspace{2cm}}$

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## Dividing Decimals



For each problem below, the division has been done correctly, but the decimal point is missing in the answer. Correctly place the decimal point in the answer.

1.  $88.8 / 6 = 148$

2.  $1.35 / 5 = 2700$

3.  $99.84 / 4 = 2496$

4.  $2.58 / 3 = 860$

5.  $163.8 / 7 = 234$

6.  $233.28 / 4 = 5832$

7. Explain how you decided where to place the decimal point in Problem 3.

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### Try This

Divide. Show your work.

8.  $6 \overline{)25.2}$

9.  $4 \overline{)154.8}$

10.  $9 \overline{)5.85}$

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

### Practice

11. \_\_\_\_\_ =  $\frac{5}{8} + \frac{2}{8}$

12.  $\frac{5}{9} - \frac{1}{3} =$  \_\_\_\_\_

13. \_\_\_\_\_ =  $\frac{7}{10} + \frac{2}{10}$

14.  $\frac{9}{10} - \frac{1}{2} =$  \_\_\_\_\_