6.2 Comparing and Ordering Fractions, Decimals, and Percents

When comparing and ordering fractions, decimals, and percents, write all of the numbers in the same form first.

Tell which number is greater.

Ex: $\frac{3}{20}$ or 16%? $\boxed{16\%}$ Ex: 79% or 0.08? $\boxed{79\%}$ Ex: $\frac{37}{50}$ or 37%?

$$\frac{3 \times 5}{20 \times 5} = \frac{15}{100} = 15\%$$

$$79\% = 0.79$$

$$\frac{37 \times 2}{50 \times 2} = \frac{74}{100} = 74\%$$

$$15\% \boxed{<} 16\%$$

$$0.79 \boxed{>} 0.08$$

$$74\% \boxed{>} 37\%$$

$$16\% = \frac{16 \div 4}{100 \div 4} = \frac{4}{25}$$

$$0.08 = 8\%$$

$$37\% = \frac{37}{100}$$

$$\overset{\textcircled{75}}{\frac{3}{20}} \boxed{<} \overset{\textcircled{80}}{\frac{4}{25}}$$

$$79\% \boxed{>} 8\%$$

$$\overset{\textcircled{3700}}{\frac{37}{50}} \boxed{>} \overset{\textcircled{1850}}{\frac{37}{100}}$$

Ex: You, your sister, and a friend each take the same number of shots at a soccer goal. You make 72% of your shots, your sister makes $\frac{19}{25}$ of her shots, and your friend makes 0.67 of his shots. Who made the fewest shots?
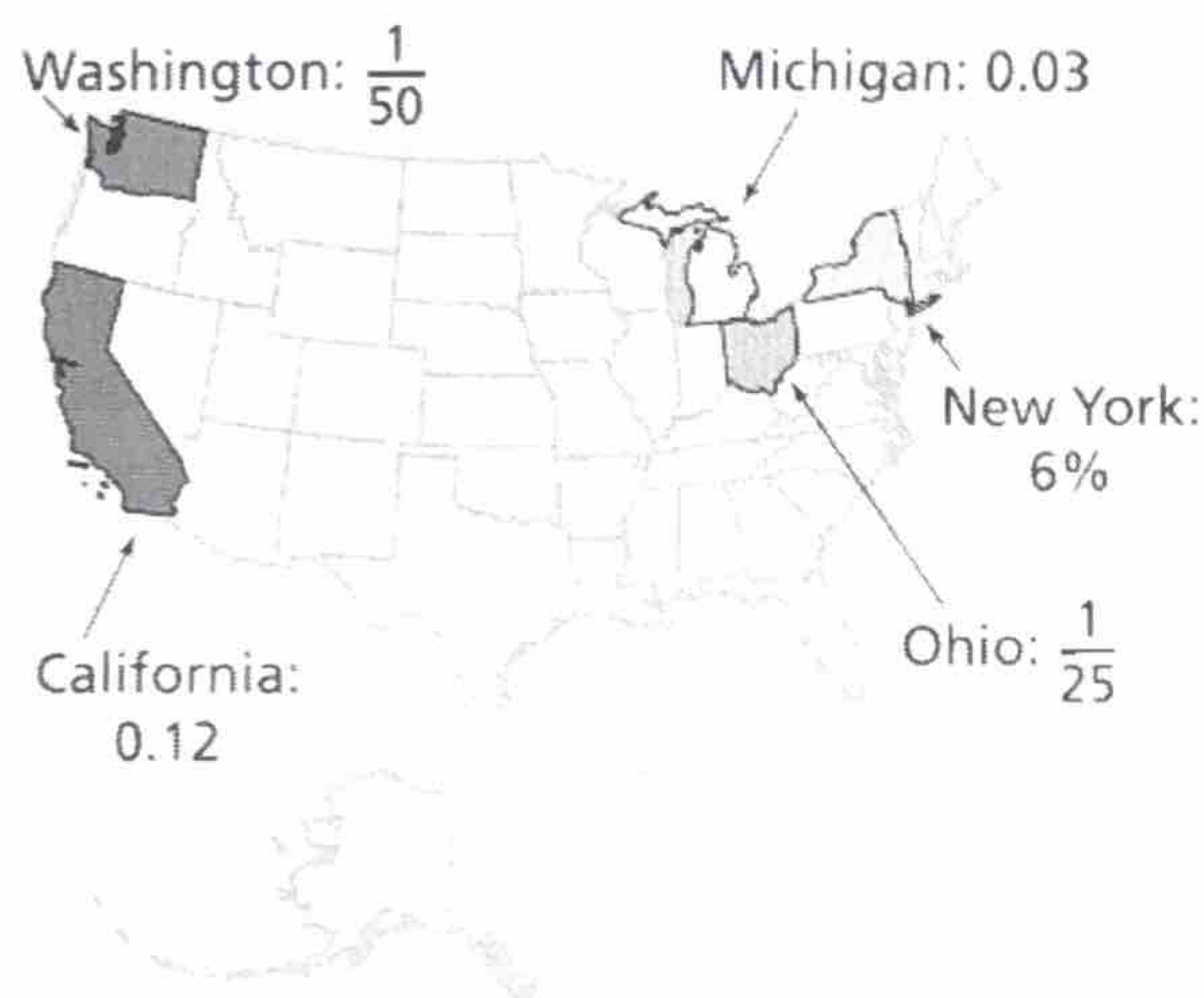
You: 72% $\longrightarrow$ 0.72

Sister: $\frac{19}{25} \times 4 = \frac{76}{100} \rightarrow 0.76$

Friend: 0.67 $\longrightarrow$ 0.67

$$\boxed{\text{Your friend made the fewest shots.}}$$

Ex: The map shows the portions of the U.S. population that live in the five states. <u>Complete the table</u> then list the states by population from <u>least to greatest</u>.

Washington: $\frac{1}{50}$ Michigan: 0.03

California: 0.12

New York: 6%

Ohio: $\frac{1}{25}$

State	Fraction	Decimal	Percent	
Michigan	$\frac{3}{100}$	0.03	3%	②
New York	$\frac{3}{50}$	0.06	6%	④
Washington	$\frac{1}{50}$	0.02	2%	①
California	$\frac{3}{25}$	0.12	12%	⑤
Ohio	$\frac{1}{25}$	0.04	4%	③

Washington, Michigan, Ohio, New York, California

<u>Try These:</u>

(1) Which is greater, 25% or $\frac{7}{25}$?

$$\boxed{\frac{7}{25}}$$

(2) Which is greater, 0.49 or 94%?

$$\boxed{94\%}$$

(3) You make 75% of your shots, your sister makes $\frac{13}{20}$ of her shots, and your friend makes 0.7 of his shots. Who made the <u>most</u> shots? $\boxed{\text{You}}$

(4) The table shows the portions of population of Rhode Island that live in each county. <u>Complete the table.</u> Then list the counties in order by population from <u>least to greatest</u>.

Counties	Fraction	Decimal	Percent	
Bristol	$\frac{1}{20}$	0.05	5%	①
Kent	$\frac{4}{25}$	0.16	16%	④
Newport	$\frac{2}{25}$	0.08	8%	②
Providence	$\frac{59}{100}$	0.59	59%	⑤
Washington	$\frac{3}{25}$	0.12	12%	③

Bristol,
Newport,
Washington,
Kent,
Providence