

Study the Census Data:

1. What do you notice?
2. What do you wonder?

Percents

Tools:

- How to find a %
- How to increase by a %
- How to find % increase
- How to find previous amount if you know percent increase and current amount

3. What percent of the total land was water in 1790?

(United States) Population and Area: 1790 to 2010							
Census data	Resident population				Area (square miles)		
	Number	Per square mile of land area	Increase over preceding census		Total	Land	Water
			Number	Percent			
1790 (August 2)	3,929,214	4.5	(X)	(X)	891,364	864,746	24,065

4. What do you think the 2020 population will be?

(United States) Population and Area: 1790 to 2010				
Census data	Resident population			
	Number	Per square mile of land area	Increase over preceding census	
			Number	Percent
1990 (April 1)	4 248,718,302	70.3	22,176,103	9.8
2000 (April 1)	6 281,424,603	79.6	32,706,301	13.1
2010 (April 1)	7 308,746,065	87.4	27,321,462	9.7

5. What was the % increase in population from 1910 to 2010?

(United States) Population and Area: 1910 to 2010	
Census data	Resident population
	Number
1910 (April 15)	92,228,496
2010 (April 1)	7 308,746,065

6. If the 1790 population was a 40% increase from 1780, what was the 1780 population?

Tools:

- How to decrease by a %
- How to find % decrease
- Compare with % by saying this amount is __% of that amount.

7. A patient went from weighing 160 pounds to 140 pounds. What percent of his weight did he lose?
8. A 200 pound patient wants to lose the same percent of their weight. How much should they lose?
9. One mechanic gave me an estimate of \$350. Another said the job would cost \$580.
Compare the two estimates quantitatively at least 3 different ways.

Rates & Proportions (& Ratios)

Tools:

- How to find a rate
- If quantities are proportional, how to use the rate to find another quantity.
- What does proportional mean?

10. How do you find the number of people per square mile of land?
11. If we still had 4.5 people per square mile, how many people would we have now?