Today:

- Daily Problem
- Goal of the Day
- 10 min to finish quiz
- Two-Way Tables
- GimKit

Need:
Packet

## Bell Ringer

Write the following fractions as decimals

$$
\begin{array}{lll}
\text { a.) } \frac{1}{4} & \text { b.) } \frac{4}{5} & \text { с.) } \frac{7}{9}
\end{array}
$$

## Goal of the Day

I will be able to create and interpret a two-way table.

Trivia Question of the Day
On average, elephants weigh about 10,000 pounds. How much would the same elephant weigh on the moon?

About 1,700 lbs
(1/6 of its weight on Earth!)

## Agenda

1.) Hand in bell ringers!
---free points!
2.) Intro to two-way tables

- Notes
3.) Have a wonderful weekend!
***3 days of school next week!
-- RAD on Thursday, no school Friday!


## Categorical vs. Quantitative

## Categorical Data

- Deals with descriptions.
- Data can be observed but not measured.
- Categorical $\rightarrow$ Description


## Quantitative Data

- Deals with numbers.
-Data which can be measured.
- Quantitative $\rightarrow$ Quantity


## Categorical Data -



## Numerical Data -

Number of People at the Fair



|  |  | People at School |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Teachers | Students | Total |
|  | Digital | 6 | 42 | 48 |
|  | Print | 24 | 28 | 52 |
|  | Total | 30 | 70 | 100 |


|  |  | Textbooks |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Digital | Print | Total |
| $\begin{aligned} & \pi \\ & \text { H } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Students | 42 | 28 | 70 |
|  | Teachers | 6 | 24 | 30 |
|  | Total | 48 | 52 | 100 |

## Order does not matter for categorical data!!!

Key aspects of Two Way Frequency Tables...


|  | Sport Utility <br> Vehicle (SUV) | Sports Car | Totals |
| :---: | :---: | :---: | :---: |
| male | 21 | 39 | 60 |
| female | 135 | 45 | 180 |
| Totals | 156 | 84 | 240 |
| MathBits.com |  |  |  |
| Add in both directions! |  |  |  |

## TW0-WAY TABLES



## Let's do one together!

1. Lexi conducted a survey and asked participants whether they were male or female and if they preferred summer or winter. Observe the results in the two-way table below. Add each row or column to complete the "totals", then use the fable to answer each question.

|  | SUUMER | WINTER | TOTAL |
| :---: | :---: | :---: | :---: |
| MALE | 23 | 27 |  |
| FEMALE | 35 | 15 | - |
| TOTAL |  |  | - |

- How many males were surveyed? $\qquad$
- How many females were surveyed? $\qquad$
- How many total people were surveyed? $\qquad$
- How many people said they prefer summer? $\qquad$
- How many people said they prefer winter? $\qquad$
- How many females said they prefer winter? $\qquad$
- How many males said they prefer summer? $\qquad$


## Filling out a Two-Way Table

2. Martin surveyed several students and asked if they had siblings and if they lived in a one or two-story home. Use the survey results below to complete the two-way table.

| SIBLINES? | Y | Y | N | Y | Y | Y | N | N | N | Y | Y | Y | N | Y | Y | N | N | Y |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ONE OR TWO STORP? | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |



- How many people surveyed live in a two-story home? $\qquad$
- Of the people with siblings, how many answered that they live in a two-story home? $\qquad$
- How many people surveyed did not have siblings? $\qquad$


## You Try! (5 min)

3. A group of middle schoolers was asked what grade they were in and whether they preferred video games (v), sports (s) or neither ( $n$ ).

| GRADE | 6 | 6 | 7 | 8 | 6 | 8 | 6 | 7 | 6 | 8 | 8 | 7 | 8 | 6 | 7 | 8 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PREFERENCE | $V$ | $V$ | N | N | S | V | S | S | V | V | S | S | S | S | V | S | S | S |


| GRADE | 8 | 8 | 7 | 6 | 7 | 8 | 6 | 7 | 6 | 8 | 8 | 7 | 7 | 6 | 8 | 6 | 7 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PREFERENCE | V | V | N | N | S | V | S | S | V | V | S | S | N | S | V | S | V | S |

Use the survey results to make a two-way table:


Filling in a Two-Way Table with missing info

|  | BEACH | MOUNTAINS | TOTAL |
| :---: | :---: | :---: | :---: |
| BIONDE | 36 |  | 90 |
| BRUNETTE | 58 | 42 | - |
| RED | 27 | 43 | - |
| BLACK | - | 59 | 100 |
| TOTAL |  |  |  |

Remember to in both directions

## You try! (4 min)


a. How many more left handed people said they liked pancakes than waffles? $\qquad$
b. How many more brunette people said that they prefer the beach to the mountains? $\qquad$
$\qquad$
c. How many more right handed people said they prefer waffles than left handed people?

## Summary (2-3 min)

Take 2-3 min to summarize today's lesson!

Summarize today's lesson:

## Homework

## Two-Way Tables Wkst \# 1-8

