WHAT'S THE PERCENT?
FRACTIONS AS PERCENTS



WHAT I HAVE
TOTAL



Spruce Grove, Alberta | High River, Alberta

According to the 2016 census, 13 420 people lived in High River, Alberta, and 36 135 people lived in Spruce Grove, Alberta.

- How could you compare the populations of the two places?

= 100%

HR: $\frac{13420}{49555} = 0.2708 = \boxed{27.1\%}$ SG: $\frac{36135}{49555} = 0.7291 = \boxed{72.9\%}$

"WHAT PERCENT OF ___ IS ___?"
DENOMINATOR NUMERATOR

AT THE OPENING NIGHT of A PLAY, 650 PEOPLE ATTENDED. THE NEXT night, 520 ppl ATTENDED. WHAT PERCENT of the OPENING night POPULATION WAS THE NEXT night POPULATION?

OR

WHAT WAS THE NEXT night POP. AS A PERCENT OF the OPENING night POPULATION.

$\frac{520}{650} = 0.8 = 80\%$

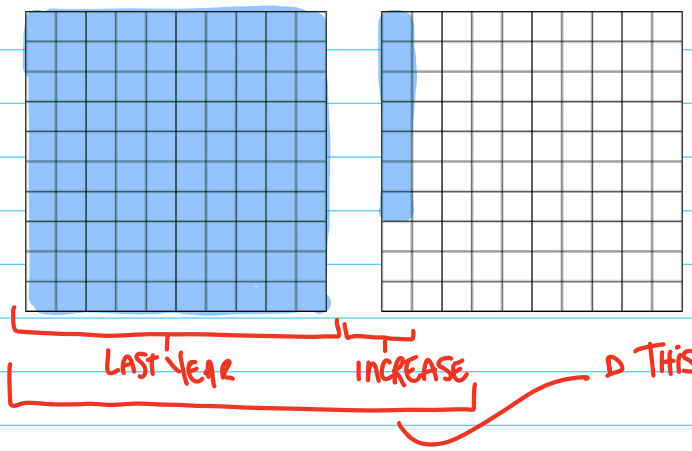
↳ RATIO COMPARING NEW : OLD

$\frac{520}{650} = \frac{NEW}{OLD}$

Last year, there were 414 million Snapchat users. This year, there were 443 million users.

What percent of the number of users last year is the number of users this year?

Use percent grid to represent the situation.



$\frac{\text{NEW}}{\text{OLD}} = \frac{\text{THIS YEAR}}{\text{LAST YEAR}} = \frac{443_M}{414_M}$

$= 1.07 = \boxed{107\%}$

Bitcoin is a digital currency. If you bought one Bitcoin on December 9, 2023, it would have cost $44,180 but if you bought one Bitcoin today it would cost you $99,756.

WHAT PERCENT of the PREVIOUS PRICE is the CURRENT PRICE?

$\frac{\text{IS}}{\text{OF}} = \frac{\text{NEW}}{\text{OLD}} = \frac{\text{THIS YEAR}}{\text{LAST YEAR}} = \frac{\$99756}{\$44180} = 2.25 = \boxed{225\%}$

WHAT IS THE PERCENT INCREASE of BITCOIN in A YEAR?

↳ WHAT is 100% → $44180 → PREVIOUS PRICE → HOW MUCH DID it GROW?

225 - 100 = 125%



The north magnetic pole has been drifting across the Canadian Arctic. It used to drift at an average speed of 10 km/year. Recently, it has been drifting at 50 km/year. The circumference of the Earth is 40 000 km.

What percent is the current speed of the original speed?

$\frac{\text{NEW}}{\text{OLD}} = \frac{\text{IS}}{\text{OF}} = \frac{50}{10} = 5.0 = \boxed{500\%}$

At 50 km/year, what percent of Earth's circumference will the pole drift in one year?

$\frac{\text{WHAT YOU HAVE}}{\text{TOTAL}} = \frac{50\text{km}}{40{,}000\text{km}} = 0.00125 = \boxed{0.125\%}$

Example 4

Active COVID-19 cases for the past 4 days:

Nov 24 = 1115
Nov 23 = 1549
Nov 22 = 1584
Nov 21 = 1336

What is each day's number of cases represented as a percent of the previous day's number of cases.

*WHAT PERCENT of CURRENT DAY IS PREVIOUS DAY?

$\frac{\text{NEW}}{\text{OLD}} = \frac{\text{IS}}{\text{OF}}$

NOV 22: $\frac{1584}{1336}$ = 1.185 = 118.5%

NOV 23: $\frac{1549}{1584}$ = 0.9779 = 97.79%

NOV 24: $\frac{1115}{1549}$ = 0.719 = 71.9%

What is each day's percent CHANGE?

100% = PREVIOUS DAY TOTAL

NOV 22 = 18.5% NOV 23 = 2.2% NOV 24 = 28.1%

What is the **average** percent change over the 4 days?

$\frac{\text{SUM of ALL VALUES}}{\text{\# of VALUES THERE ARE}} = \frac{18.5 + 2.2 + 28.1}{3} = 16.2\%$