

Chapter 8: Percents

Section 8.1 - Understanding large and small percents

Percents greater than 100% (>100%)

Vocabulary

Percent - out of 100 ; "hundredths" $\frac{\quad}{100}$

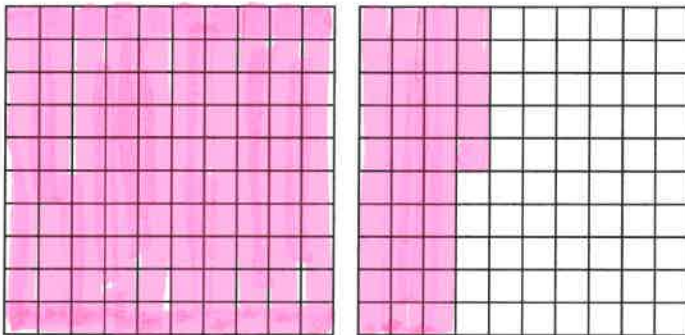
ex. $65\% = 65$ hundredths. or $0.65 = \frac{65}{100}$

- easy to compare because it is always out of 100.

Example

Key Points

135%



- 135% is greater than 100% so we need more than one 100's grid
- Shade in 100/100 to show 100%
- Shade in ____/100 to show the extra 35%

• Real life examples:

▷ 10% raise.

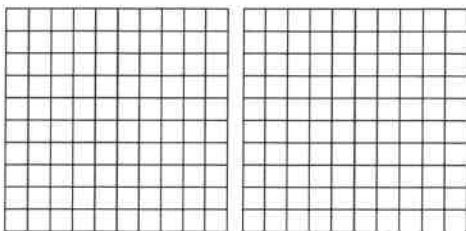
↳ wage is now 110% of what it was.

▷ Increase in population size

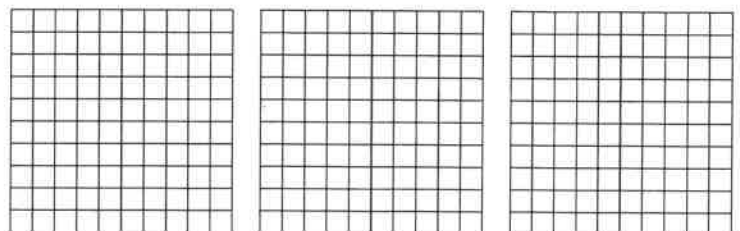
↳ 35% increase in students for 2024 so the # of students will be 135% compared to 2023

Try it out:

110%



250%

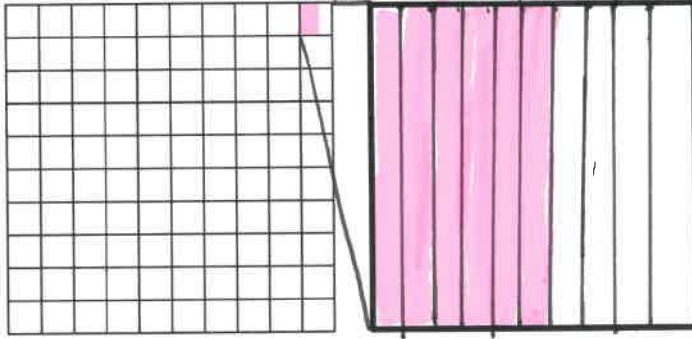


Percents less than 1% (<1%)

Example

Key Points

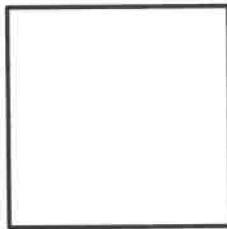
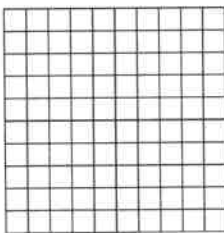
$0.6\% \rightarrow \frac{6}{10}$ or 60% of 1%.



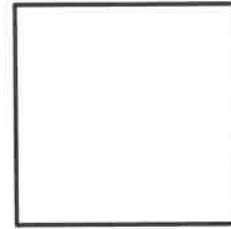
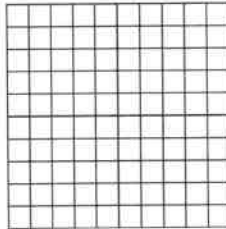
- 0.6% is less than 1%
- Should have less than one full box shaded on the 100's grid
- Need to represent 0.6% as a fraction first in order to represent its part of a whole
- Real life examples:
 - rare health disorders.
↳ ex Albinism affects $\frac{1}{10,000}$ (1 in every 10,000) mammals $\rightarrow 0.01\%$
 - Diet / % of certain elements in our body
↳ we are 0.2-0.25% sulfur.

Try it out:

0.1%



0.25%

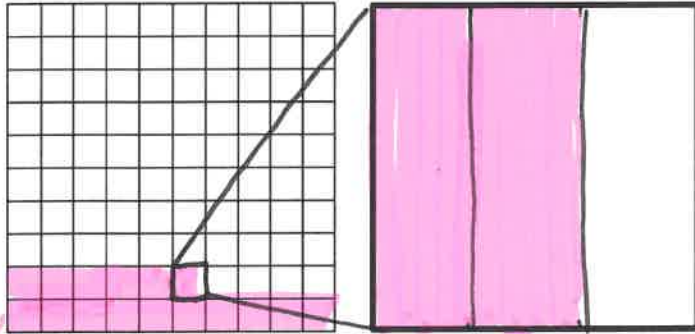


Fractional Percents

Example

Key Points

$$15\frac{2}{3}\%$$

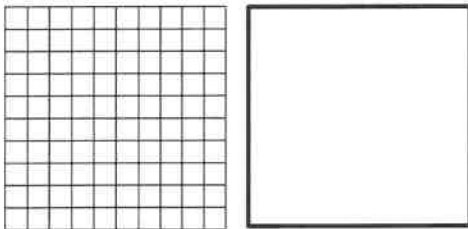


- We have 15 whole percents and $\frac{2}{3}$ of one percent
- 15 whole boxes should be shaded and $\frac{2}{3}$ of the 16th box
- Real life examples:

$\frac{2}{3}$ of the 16 box.

Try it out:

$$75\frac{5}{8}\%$$



$$45.9\%$$

