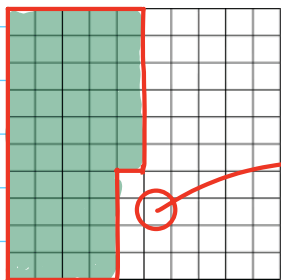
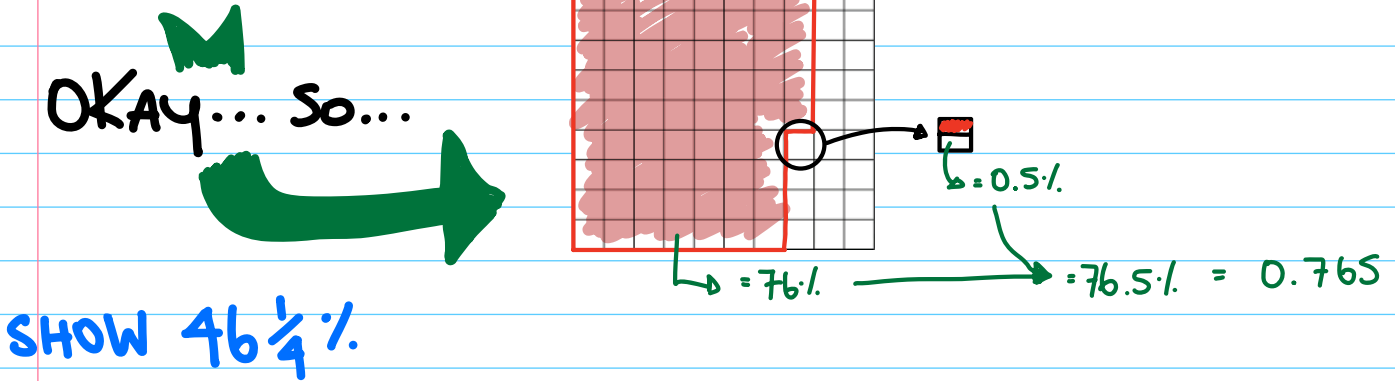
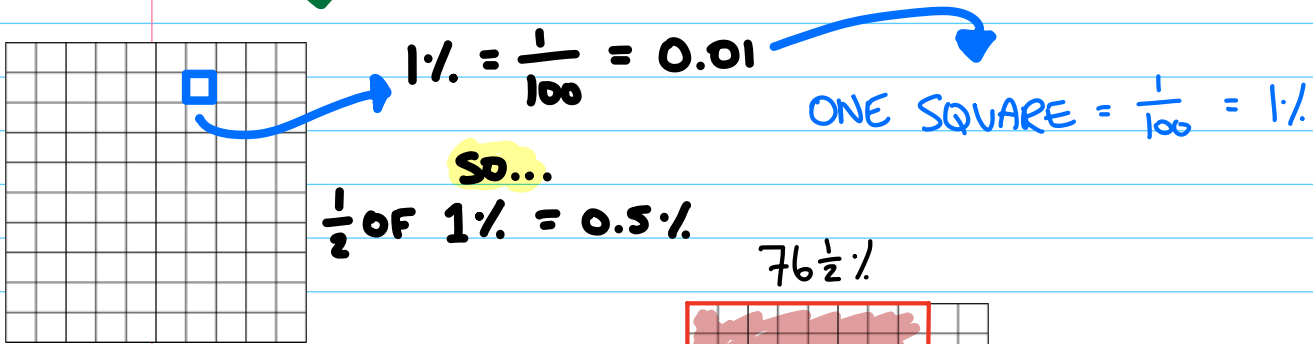
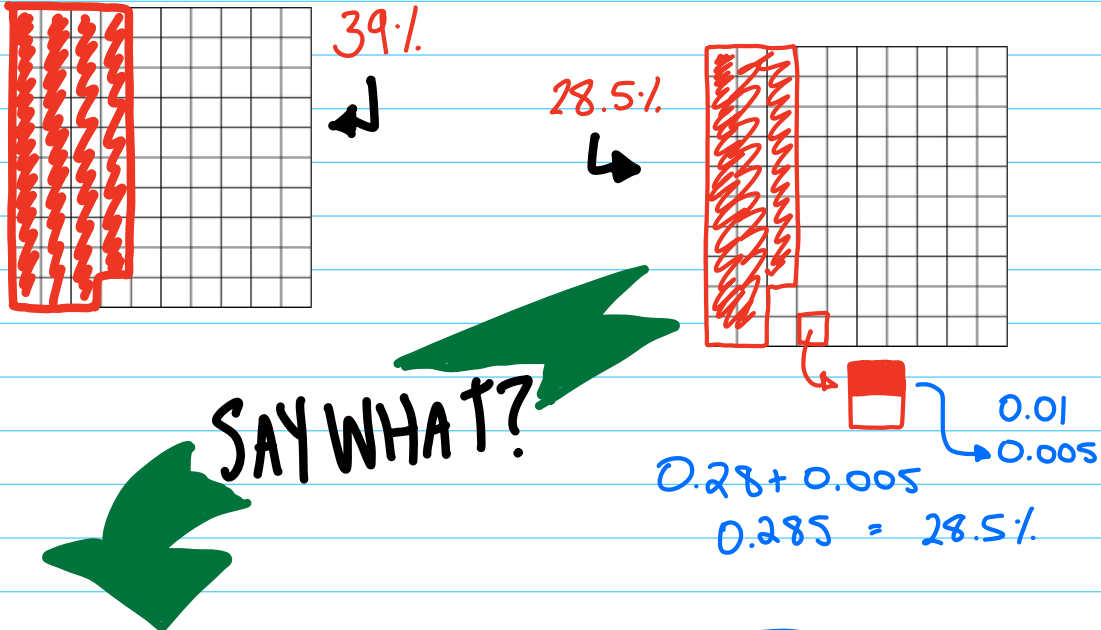


# REPRESENTING PERCENTS

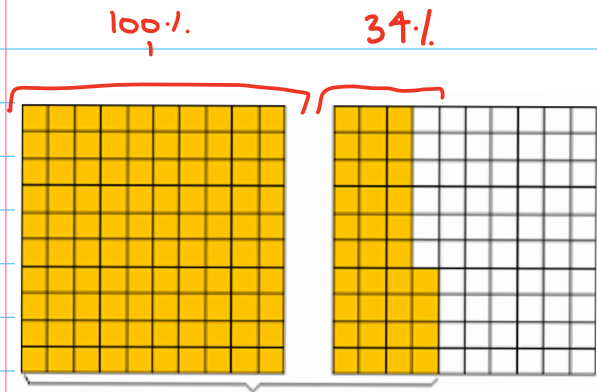
WHY DO WE USE PERCENTS? TO SHOW & COMPARE PARTS OF A WHOLE



① DRAW/OUTLINE THE WHOLE PERCENTS

② DRAW A LARGER SQUARE AND SHOW THE FRACTIONAL PART

# PERCENTS GREATER THAN 100%

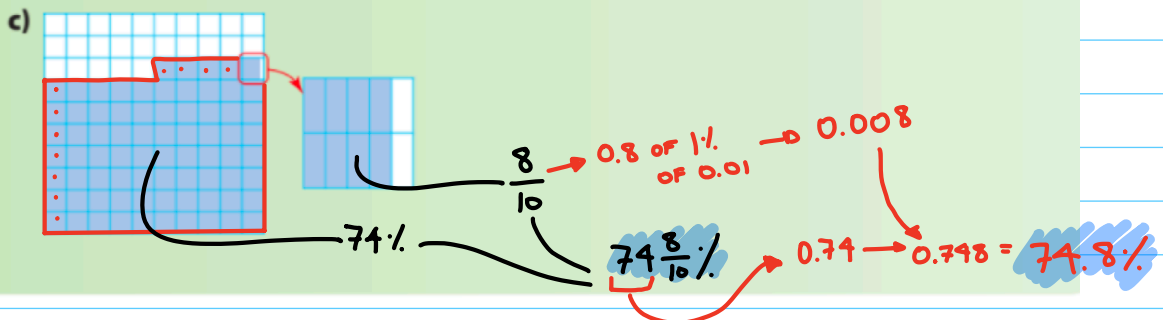
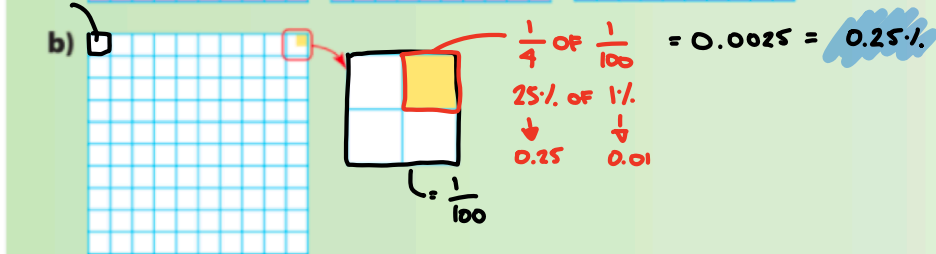
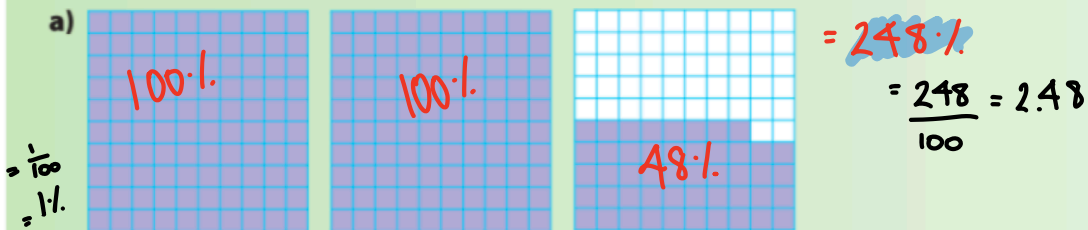


$$= 134\%$$

$$\hookrightarrow \frac{134}{100} = 1.34$$

## Show You Know

One completely shaded grid represents 100%. What percent does each diagram represent?



PETER LOUGHEED SCHOOL'S POPULATION IS 85% OF THE PREVIOUS YEAR. REPRESENT THIS ON THE HUNDRED GRID.



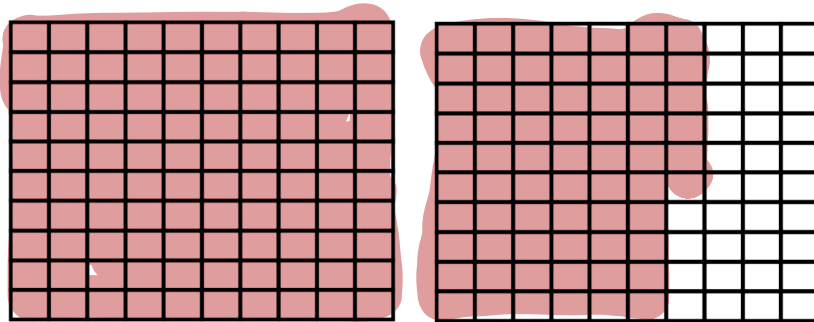
IF THE PREVIOUS POPULATION WAS 950 STUDENTS, WHAT DOES EACH SQUARE REPRESENT?

↳ TRANSLATION: WHAT IS 1% OF 950?

$$\frac{1}{100} = \frac{x}{950} \rightarrow 1 \times 950 \div 100 = 9.5$$

Each square represents 9.5 students

The first year profit for a small business was 32,000 and it increased by 76% during the second year. Represent this situation.



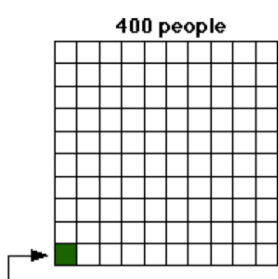
What was the total profit for the second year **as a percent of the first year?**

$$\frac{176}{100} = 176\% \text{ of the first year}$$

# PERCENT REPRESENTS AN EQUIVALENT AMOUNT OUT OF 100

YOU NEED TO ASK/UNDERSTAND:

- WHAT DOES ONE WHOLE REPRESENT (in the situation) ↖ 100%
- WHAT AMOUNT DOES THE PERCENT REPRESENT?

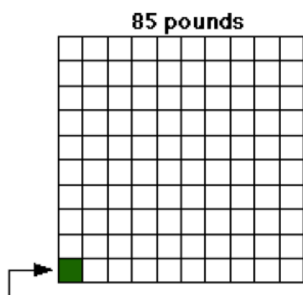


What does the shaded represent (one square), if the total grid represents 400 people?

$$\frac{1}{100} = \frac{x}{400}$$

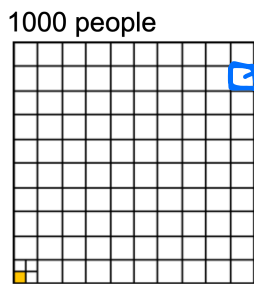
x4

So...  $1 \times 4 = 4 \rightarrow 1 \text{ SQUARE} = 4 \text{ PPL}$



$$\frac{1}{100} = \frac{x}{85}$$

→ CROSS MULTIPLY →  $1 \times 85 = 85$  →  $0.85 \text{ LBS} = 1 \text{ SQUARE}$



1 Square = 1% → 1% of 1000 PPL = 10 PPL

$$1 \text{ Square} \div 4$$

$$\frac{1}{4} \text{ of } 10 \text{ PPL} = 2.5 \text{ PPL}$$

$$\frac{1}{4} \text{ of } 1\%$$

SHADED PORTION = 2.5 PEOPLE

20. A new top-selling DVD is marked 20% off at Discount DVD, where it normally sells for \$29.90. The same disc sells for \$28.60 at Value Video, where you have a coupon for 15% off anything in the store. Where would you buy the DVD? Explain how you decided and be sure to include work to support your answer.

20% off = You pay 80% of the price  
(CAN'T MULT. BY A PERCENT, MUST  
CONVERT TO DECIMAL)

$$\begin{aligned}\text{Discount DVD} &\rightarrow \$29.20 \times 80\% \\ &\quad \times 0.8 = \$23.36\end{aligned}$$

$$\begin{aligned}\text{Value Video} &\rightarrow \$28.60 \times 85\% \\ &\quad \times 0.85 = \$24.31\end{aligned}$$

I'D BUY the DVD @ DISCOUNT BECAUSE

80% of \$29.20 is LESS than 85% of \$28.60