

## Unit 2: Percentages

### A: Representing Percents

Complete the handout "4.1 Representing Percents". (I would have given you a copy)

- Check your answers with the key that follows this document.
- Complete Page 128 # 4-8

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**4.1**

**Representing Percents**

MathLinks 8, pages 122-129

**KEY**

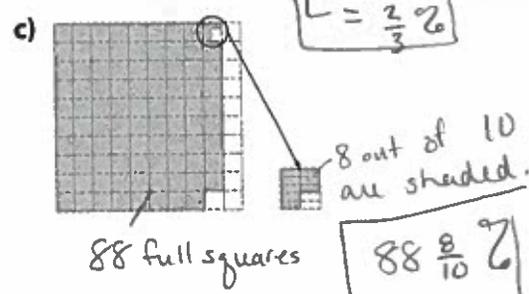
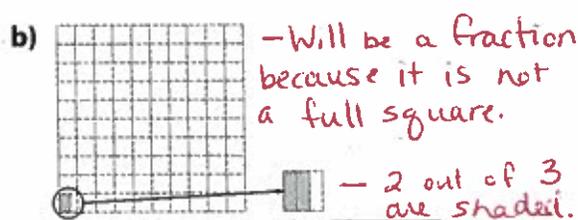
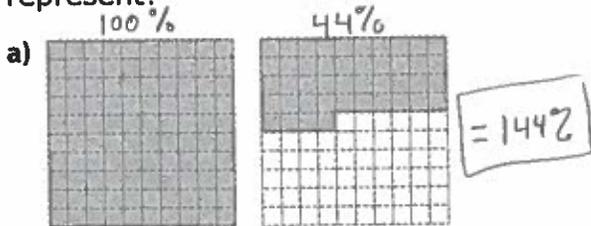
**Key Ideas Review**

Match each sentence beginning in column A to an ending in column B.

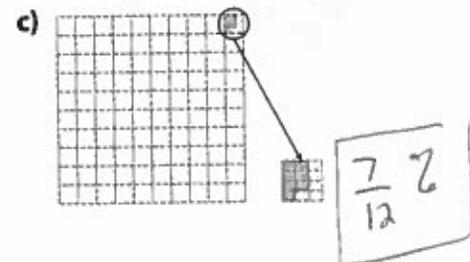
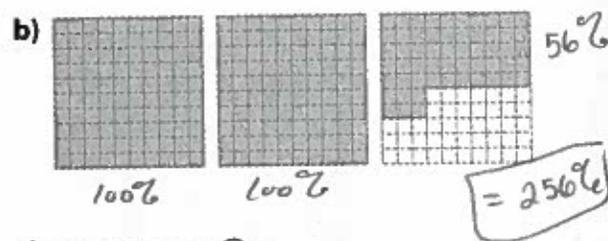
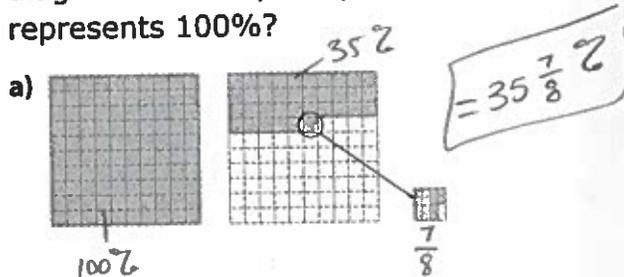
A	B
1. To represent a percent greater than 100%, <u>C</u>	a) shade squares from a hundred grid to show the whole number and part of one square to show the fraction.
2. To represent a fractional percent greater than 1%, <u>a</u>	b) shade part of one square on a hundred grid.
3. To represent a whole percent, <u>d</u>	c) shade more than one hundred grid.
4. To represent a fractional percent between 0% and 1%, <u>b</u>	d) shade squares on a grid of 100 squares called a hundred grid.

**Practise and Apply**

5. One full grid represents 100%. What percent does each diagram represent?



6. What percent is represented by each diagram if a completely shaded grid represents 100%?

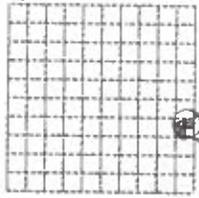


Name: \_\_\_\_\_

Date: \_\_\_\_\_

7. Represent each percent on the grids provided.

a)  $\frac{3}{4}\%$

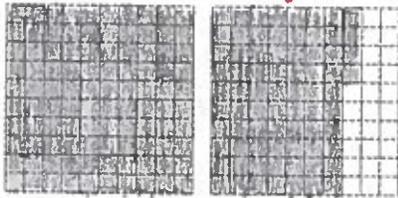


- Divide enlarged square into 4.  
- Shade in 3 squares.

- Show enlargement by "connecting"

- shade the grid square approximately

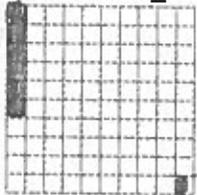
b) 174%



- Shade 174 squares.

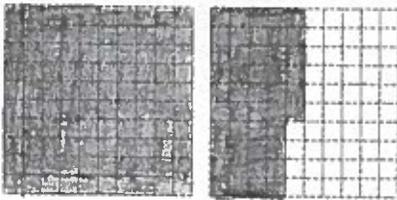
8. Represent the percent in each statement on a grid provided.

a) A tax is  $6\frac{1}{2}\%$



- Shade 6 "full" squares  
- enlarge one square  
- divide it into 2  
- shade 1 section

b) Mt. Everest is about 146% the height of Mt. Logan.



- Shade 146 full squares.

9. How many hundred grids are needed to show each of the following percents? Explain your thinking.

a) 230%

200 - 2 grids      3 grids  
30 - 1 grid

b) 680%

600 - 6 grids  
80 - 1 grid      7 grids.

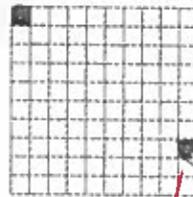
c) 395%

300 - 3 grids      4 grids  
95 - 1 grid

d) 1420%

1000 - 10 grids      15 grids.  
400 - 4 grids  
20 - 1 grid

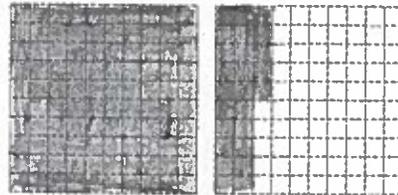
10. About 1.7% of Earth's water is stored in groundwater, lakes, rivers, streams, and soil. Use the hundred grid below to show this percent.



1.7  
1 full       $\frac{7}{10}$

- Make 10 sections  
- Shade in 7.  
Draw enlargement lines.

11. An orange contains about 80% of the recommended daily value of vitamin C. Use a hundred grid to show how many oranges you would need to eat to get 100% of the daily value of vitamin C.



1.25 orange  
1 full orange  
- 1 full grid.  
0.25  
=  $\frac{25}{100}$  squares

- Determine using proportion.

$$\frac{1 \text{ orange}}{x} \times \frac{80\%}{100\%} = \frac{80x}{80} = \frac{100}{80}$$

$$x = 1.25$$