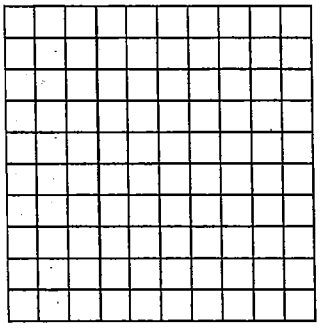
Percent

Percent means "per hundred" or "out of 100."
One whole, or 1, is 100%.

So: 25% is $\frac{25}{100}$ 4% is $\frac{4}{100}$ 100% is $\frac{100}{100}$ or 1

Example 2

This is a hundredths grid.



a) What percent of the hundredths grid is shaded?
b) What percent of the hundredths grid is not shaded?

Solution

a) 27 out of 100 squares are shaded.

$\frac{27}{100} = 27\%$

27% of the grid is shaded.

b) 73 out of 100 squares are not shaded.

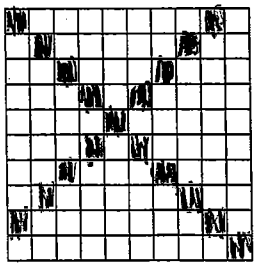
$\frac{73}{100} = 73\%$

73% of the grid is not shaded.

Check

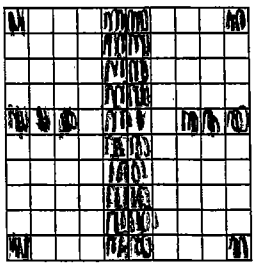
3. Write a fraction with denominator 100 for the shaded part of each hundredths grid. Then write each fraction as a percent.

a)



_____ = _____

b)



_____ = _____

Key to Success

Study with a classmate.

- Share the same problem.
- Compare your problem-solving strategies.
- Does your strategy have an advantage over your classmate's?

Activity 6-1: **Percentages** Name: _____

Percentages are a set of fractions that have denominators of 100. What words have the root "cent" which mean 100? Restaurants use percents to determine profits, costs, and losses. Bankers use percents to compute interest. Taxes are determined using percents. In basketball you have free throw percents, in football quarterbacks complete a certain percent of their passes. Big sales (50% off!) are in percents and even your math grade is a percent!

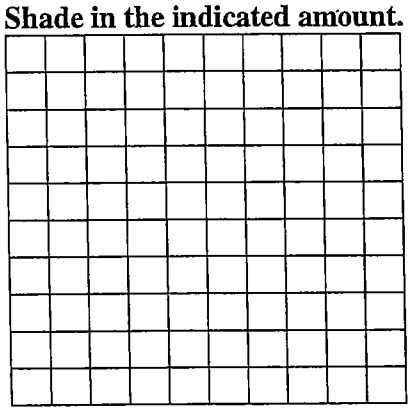
Percent comes from Latin "per centum." Per means out of and centum means one hundred. Thus, percent means out of one hundred.

$\frac{23}{100}$ is a fraction that represents 23 out of 100.

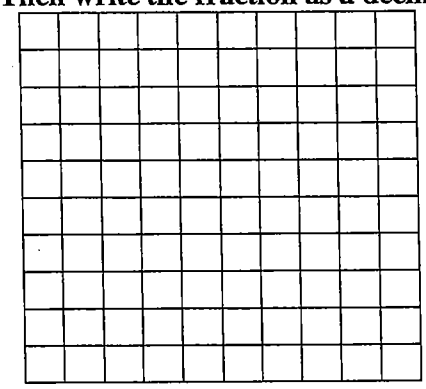
0.23 is a decimal that represents 23 out of 100.

23% is a percent that represents 23 out of 100. $\frac{23}{100} = 0.23 = 23\%$

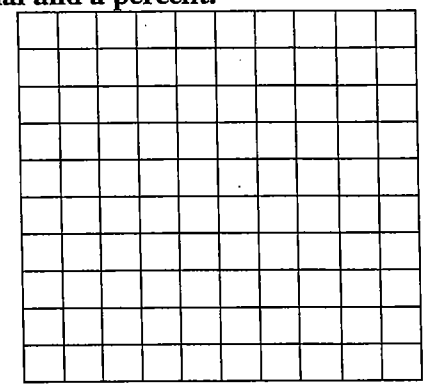
Shade in the indicated amount. Then write the fraction as a decimal and a percent.



$\frac{12}{100} =$ _____ = _____%



$\frac{7}{100} =$ _____ = _____%



$\frac{35}{100} =$ _____ = _____%

Numbers that have 6 as a factor

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$\frac{\quad}{100} =$ _____ = _____%

Numbers that have 7 as a factor

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$\frac{\quad}{100} =$ _____ = _____%

Activity 6-3: **Percentages/Fractions** Name: _____

Converting percentages to fractions

Percent to a fraction	Write the percent number over 100 and simplify ***Example 1***: $78\% = \frac{78}{100} = \frac{39}{50}$ ***Example 2***: $6.2\% = \frac{6.2}{100} \bullet \frac{10}{10} = \frac{62}{1000} = \frac{31}{500}$

Convert the following percentages to fractions in simplest form.

1.	84%		2.	35%		3.	7%	
4.	80%		5.	–10%		6.	99%	
7.	75%		8.	95%		9.	64%	
10.	50%		11.	–4%		12.	28%	
13.	–51%		14.	91%		15.	57%	