Warm-up



There are 100 squares, and 25 are shaded.

1.What fraction is shaded? What fraction is not shaded?

$\frac{25}{100}$ $\frac{75}{100}$

2.What ratio compares shaded squares to all squares? What ratio of squares are NOT shaded compared to all squares?

25 : 100 75 : 100 shaded to all

3.What percent is shaded? What percent is not shaded?

25% 75%

4.What decimal is shaded? What decimal is not shaded?

0.25 0.75

all to shaded
100 : 25

shaded to not
25 : 75

What is a Percent?

- **Percent means "out of 100."**
- **They can be written as a fraction or decimal too.**
- **Percents always add up to 100%**
  - **If you have over 100%, you have MORE than the 1.**

EXAMPLE 1

you get 85 out of 100 on your math test.

What is the percentage you got?

How many did you get wrong? What percentage is that?

85 %

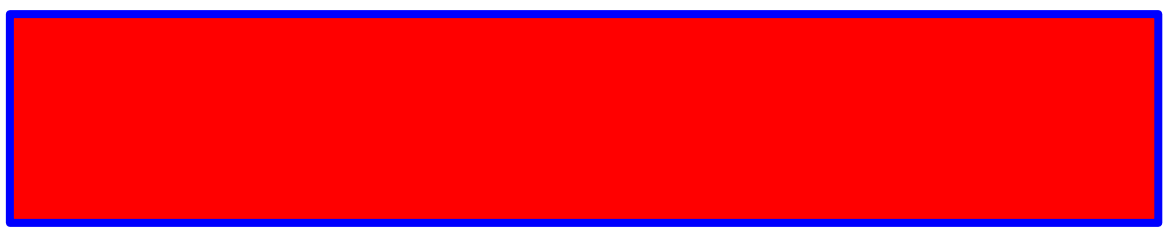
15 %.

85+15=100

You get all your questions right on the math test. What is your percentage?

100%

AND YOU GET THE BONUS! SO YOU GET 1 EXTRA POINT WHICH GIVES YOU 101 OUT OF 100! What is the percentage you have now?



$\frac{101}{100}$

101%

Ratios → Percents → Fractions → Decimals

- all can be converted to each other

blue to red

12:20

Total = 32

- decimal of blue 0.375
- percent of blue 37.5%
- fraction of blue $\frac{12}{32}$

$$
\begin{array}{r}
0.375 \\
32\overline{)12.000} \\
-96\downarrow \\
\hline
240 \\
-224\downarrow \\
\hline
160 \\
-160 \\
\hline
0
\end{array}
$$

0.56

fraction $\frac{56}{100}$

percent 56%

ratio to total 56:100

$$\frac{45}{50} = \frac{90}{100}$$

ratio 45:50

percent 90%

decimal 0.90

Homework

* Ratio:
number to total.