1. Science: You score 80% on a test. There were 55 questions, how many did you get right?

$\frac{x}{55} = \frac{80}{100}$ $\frac{4400}{100} = \frac{100x}{100}$ $x = 44$ Correct

2. SS: You get 18 out of 23 questions on the test, what is your percentage?

$\frac{18}{23} = \frac{x}{100}$ $\frac{1800}{23} = \frac{23x}{23}$ $x = 78.3\%$

3. English: You get 76% on your essay. If you got 41.8 points, how many was the essay out of?

$\frac{41.8}{x} = \frac{76}{100}$ $\frac{4180}{76} = \frac{76x}{76}$ $x = 55$ pts.

Percent Proportion: $\frac{70}{100}$ .7

$\frac{part}{whole} = \frac{\%}{100} \times whole$

The Percent Equation

Words To represent "a is p percent of w," use an equation.

percent in fraction or decimal form

$a = p \cdot w$

part of the whole

whole

Numbers $15 = 0.5 \cdot 30$

WRITE THIS DOWN!! #1

part = percent (dec) x whole

What number is 73% of 200?

part = percent (dec) x whole

$a = p \cdot w$

$a = .73 \cdot 200$

$a = 146$

( ) e^{+P} x ÷ + −

PEMDAS-000

When var is ALONE

SADMEP- BACKWARDS

When solving for var (not already alone)

1. What number is 10% of 20?

$a = p \cdot w$

$a = .10 \cdot 20$

$a = 2$

2. What number is 150% of 40?

$a = p \cdot w$

$a = 1.5 \times 40$

$a = 60$

36.4 is what percent of 40?

part = percent (dec) x whole

$a = p \cdot w$

$\frac{36.4}{40} = \frac{p \cdot \cancel{40}}{\cancel{40}}$

$.91 = p$

91%

3. 3 is what percent of 600?

$a = p \cdot w$

$\frac{3}{600} = \frac{p\ 600}{600}$

$.005 = p$

$.5\%$

4. 18 is what percent of 20?

$a = p \cdot w$

$\frac{18}{20} = \frac{p\ \cancel{20}}{\cancel{20}}$

$.9 = p$

90%

18 is 15% of what number?

part = percent (dec) x whole

$a = p \cdot w$

$\frac{18}{.15} = \frac{\cancel{.15}\ w}{\cancel{.15}}$

$120 = w$

5. 8 is 80% of what number? 10

$a = p \cdot w$

$8 = .80 \times w$

$\frac{8}{.80} = \frac{.80 \times w}{.80}$

$10 = w$

6. 90 is 18% of what number?

$a = p \cdot w$

$90 = .18\, w$

$\frac{90}{.18} = \frac{.18\, w}{.18}$

$500 = w$