

# Ratio and Proportion

## Answer Key

1. Answer: C

**Explanation:** To transform a ratio into its fractional form, we just write the first number of the ratio as the numerator, then the second number as the denominator.

Thus, 5:6 is % in fractional form.

### 2. Answer: B

**Explanation:** The problem is asking us to determine the ratio of hens to the total number of chickens. This problem is an example of a <u>"part to a whole"</u> ratio.

The total number of chickens is the sum of the number of roosters and number of hens: 15 + 18 = 33

Meanwhile, there are 15 hens.

Therefore, the ratio of hens to the total number of chickens is 15:33.

#### 3. Answer: B

**Explanation:** To find the value of N in 8: N = 16: 50, we just apply the rule that in a proportion, the product of the means is equal to the product of the extremes.

Product of the means: N x 16

Product of the extremes:  $50 \times 8 = 400$ 

Since the product of the means is equal to the product of the extremes:

 $N \times 16 = 400$ 

What must be multiplied to 16 so that we obtain 400? That number is 25 (400 ÷ 16)

Hence, the answer is 25.

#### 4. Answer: C

**Explanation:** We will just use the same method we used in Item 3 to solve for A in A: 13 = 3: 39





# Ratio and Proportion

## Answer Key

Product of the means:  $13 \times 3 = 39$ Product of the extremes:  $A \times 39$ 

Since the product of the means is equal to the product of the extremes in a proportion:  $39 = A \times 39$ 

What must be multiplied to 39 to obtain itself? That number is 1.

Hence, A must be equal to 1.

### 5) Answer: C

**Explanation:** Four slices of an egg pie cost PHP 150. We can express the ratio of the number of slices of egg pie to its price as 4 : 150. The problem is asking us to determine how much is twelve slices of the egg pie.

Let N be the price of the 12 slices of egg pie.

We can construct this proportion below:

4:150 = 12:N

Product of the Means:  $150 \times 12 = 1800$ 

Product of the Extremes: 4 x N

Since the product of the means is equal to the product of the extremes in a proportion:

 $1800 = 4 \times N$ 

What must be multiplied to 4 to obtain 1800? That number is 450 (1800 ÷ 4)

Hence, N = 450.

The cost of twelve slices of the egg pie is PHP 450.

