

## Math 70 Quiz #3 Solutions

1. Note that  $15\% = 0.15$  written as a decimal. To compute the tip, we have to find 15% of \$45.  
 $\Rightarrow \text{Tip} = 45 \times 0.15 = 6.75$

So, the tip will be \$6.75.

2. Note that 1 kilometer = 1000 meters. So,  $35,216 \text{ m} \times \frac{1}{1000} \frac{\text{km}}{\text{m}} = \frac{35,216}{1000} \text{ km} = 35.216 \text{ km}$ .

3. Note that 1 gram = 1000 milligrams. So,  $5.6 \text{ g} \times \frac{1000}{1} \frac{\text{mg}}{\text{g}} = 5.6 \times 1000 \text{ mg} = 5,600 \text{ mg}$ .

4. (a)  $-3 + (-11) = -14$

Note:  $-3$  and  $-11$  are both negative so we just need to add the absolute values:  $3 + 11 = 14$  and note that the answer will be negative.

- (b)  $1.7 + (-11) = -9.3$

Note: Since the two numbers are opposite in sign, we calculate the following:  $11 - 1.7 = 9.3$  (the larger absolute value minus the smaller). Since the number with the larger absolute value is negative, the answer is negative.

- (c)  $-20 - 5 = -20 + (-5) = -25$

The reasoning is the same as in part (a).

- (d)  $\frac{3}{4} - \left(-\frac{1}{3}\right) = \frac{3}{4} + \frac{1}{3} = \frac{9}{12} + \frac{4}{12} = \frac{13}{12}$

Note: Subtraction of a negative number is equal to the addition of the opposite (positive) number.