**Independent Practice:**

Correct Me if I am Wrong!

Now it is your turn to find my mistakes! Check my work below to see if I have made any mistakes. If you find my mistake then correct it. Explain what mistakes I have made using appropriate math terms. If the problem is worked correctly then mark it as “correct”!

1. Kahle and his brothers rolled 15 snowballs that had a diameter of 3 inches. What is the volume of all of the snowballs?

$$v\_{sphere}=\frac{4}{3}πr^{3}$$

$$v=\frac{4}{3}(3.14)(3^{3})$$

$$v=\frac{4}{3}(3.14)(27)$$

$$v=\frac{4}{3}(84.78)$$

$$v=113.04 in^{3}$$

1. The water container on the back of the utility truck has a diameter of 1 foot and a height of 2 feet. There is 7.5 gallons of water per cubic foot. How many gallons of water does the cylindrical shaped container hold?

$V\_{cylinder}=πr^{2}h$ Volume x 7.5 gallons

$v=(3.14)(\frac{1}{2}^{2})(2)$ 1.57 x 7.5 = 11.775 gallons of water

$$v=1.57 ft^{3}$$

1. The drinking cups that are supplied for the utility workers are cone-shaped paper cups. Each cup has a diameter of 3 inches and a height of 3 inches.
	1. What is the volume of water each cup will hold?

$$V\_{cone}=\frac{1}{3}πr^{2}$$

$$v=\frac{1}{3}(3.14)(1.5^{2})$$

$$v=2.355 in^{3}$$

1. Kara is cooking a large amount of soup for a local soup kitchen. How many cans that have a radius of 2 inches and a height of 4 inches will it take to fill the large pot that has a circumference of 43.96 inches and a height of 14 inches?

$V\_{can}=πr^{2}h$ $C=πr$ $V\_{pot}=πr^{2}h$ $V\_{pot}÷V\_{can}$

$V\_{can}=3.14(2^{2})(4)$ 43.96$=3.14r$ $V\_{pot}=3.14(14^{2})(14)$ 8616.16$÷$50.24

$V\_{can=}3.14\left(4\right)\left(4\right)$ $14=r$ $V\_{pot}=8616.16 in^{3}$ 171.5 cans

$$V\_{can}=50.24 in^{3}$$