

1. From the following website, find data for the table using the following parameters: Three 4.2% beers in one hour.

https://www.clevelandclinic.org/health/interactive/alcohol_calculator.asp

Weight in pounds	BAC
100	
110	
120	
130	
140	
150	
160	
170	
180	
190	
200	

From the Illinois Rules of the Road 2014:

Chapter 6: Driving Under the Influence

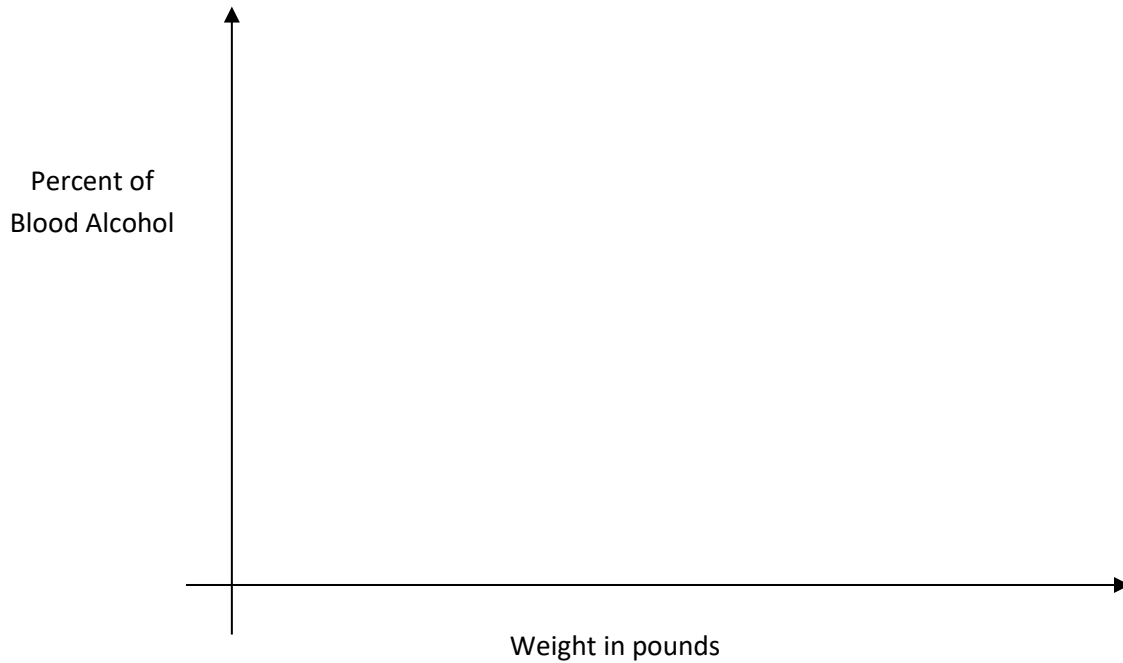
Alcohol is the number one killer on American roadways. Alcohol affects your vision and slows your reaction time so it takes longer to act in an emergency. Alcohol affects your driving even if you are below the level of illegal intoxication. Drinking even a small amount of alcohol increases your chances of causing a crash. **Do not drink and drive.**

Blood-Alcohol Concentration (BAC)

Blood-alcohol concentration is a measurement of the amount of alcohol in your system based on a test of your breath, blood or urine. It is illegal to drive if your BAC is .08 percent or more. However, you can be convicted of Driving Under the Influence (DUI) if your BAC is less than .08 percent and your driving ability is impaired. Your BAC can be affected by:

- The amount you drink — 12 ounces of beer, 5 ounces of wine or 1.5 ounces of hard liquor contain the same amount of alcohol.
- Your body weight or size. Usually, heavier people have more blood and body fluids to dilute the alcohol

2. Graph the data and sketch your result.



3. Describe the relationship between weight in pounds and BAC.

4. What type of variation exists? Can you write an equation to model this?

4. Will the BAC ever be negative? Explain how the graph supports your answer.