Questions for “The Knowledge is Money Game”
Level 2

Category 1: Brine Shrimp, Alcohol and the Scientific Method

$200
What hypothesis was tested in the brine shrimp experiment?
   a. Brine shrimp become inebriated when alcohol is present in their salt water.
   b. *Alcohol concentration can affect brine shrimp egg hatching rate.
   c. The density of brine shrimp eggs influences their rate of hatching.
   d. Brine shrimp can’t figure out how to hatch when they are drunk.

$400
Which of the following is an independent variable in the brine shrimp experiment?
   a. hatching rate of brine shrimp
   b. concentration of marine salt solution
   c. *alcohol concentration in each Petri dish
   d. temperature of the classroom

$600
Which of the following is a dependent variable in the brine shrimp experiment?
   a. *hatching rate of brine shrimp
   b. concentration of marine salt solution
   c. alcohol concentration in each Petri dish
   d. temperature of the classroom

$800
The 0% alcohol condition
   a. controls for alcohol’s effect on brine shrimp egg hatching.
   b. is not that important and can be skipped, if you run out of time.
   c. is essential to interpret the results from the alcohol conditions in the brine shrimp experiment.
   d. *Both a and c are correct.

$1000
How can results be compared accurately across conditions with variable numbers of eggs in each?
   a. This experiment CANNOT be interpreted. It must be repeated without variability.
   b. *Results can be reported in terms of the proportion of live brine shrimp relative to the number of unhatched eggs in each condition (as a percent or a ratio). Proportions can be compared across conditions.
   c. Mix all the conditions together and count all the live brine shrimp and the total number of unhatched eggs. Report as a ratio.
   d. It’s appropriate to eliminate from the data analysis all the conditions that do not support the hypothesis. This will significantly improve the ability to interpret the experiment.
Category 2: What’s on the label?
$200
What does the “Government Warning” on every bottle of alcohol sold in the US, indicate?
   a. Women should not drink alcoholic beverages during pregnancy because of the risk of birth defects.
   b. Consumption of alcoholic beverages impairs your ability to drive a car or operate machinery.
   c. Consumption of alcoholic beverages may cause health problems.
   d. *All of the above are correct.

$400
What does “80 proof” mean?
   a. 80% of the population “approof” of this drink.
   b. *40% alcohol content by volume
   c. 80% alcohol content by volume
   d. 80 mls of beverage in the bottle

$600
What type of alcohol is in an alcoholic beverage?
   a. *Ethyl (ethanol)
   b. Isopropyl (isopropanol)
   c. Methyl (methanol)
   d. All of the above are correct.

$800
There are 750 mls of wine in a bottle. Thirty mls equals one ounce. If there are 5 ounces of wine in each “drink”, how many “drinks” are there in this bottle of wine?
   a. 3
   b. *5
   c. 7
   d. 10

$1000
There are 750 mls of vodka in a bottle. Thirty mls equals one ounce. If there are 1.5 ounces of hard liquor in each “drink”, how many “drinks” are there in this bottle of vodka?
   a. 6 or 7
   b. 9 or 10
   c. 12 or 13
   d. *16 or 17
Category 3: The law

$200
Which of the following will allow the sale of alcohol to individuals who are younger than 21 years of age?
   a. Nevada
   b. District of Columbia
   c. Hawaii
   d. *None of the above. It is illegal to sell alcohol to anyone below the age of 21 in the US.

$400
What percentage of the criminal justice population is estimated to have alcohol-related birth defects?
   a. 5-6%
   b. 10-15%
   c. 25-35%
   d. *50-80%

$600
The reasons why individuals with alcohol-related birth defects are more likely to be convicted of criminal acts may include that they:
   a. *do not understand the consequences of breaking laws.
   b. deliberately choose to defy the laws of society.
   c. are incapable of experiencing fear or remorse.
   d. All of the above are correct.

$800
Individuals with alcohol-related birth defects may also experience
   a. Poor impulse control
   b. Problems understanding cause and effect relationships
   c. Poor judgment
   d. *All of the above are correct.

$1000
Which of the following dates has been legislated as “Fetal Alcohol Syndrome Awareness Day” in some communities?
   a. January 1
   b. February 14
   c. *September 9
   d. November 23
Category 4: Effects on individuals

$200
Which of the following is associated with prenatal alcohol exposure?
   a. Low birth weight
   b. Fetal Alcohol Syndrome
   c. Miscarriage and stillbirths
   d. *All of the above are correct.

$400
Individuals with alcohol-related birth defects are more likely to
   a. be victimized by peers (stolen from, tricked, etc.)
   b. have difficulty making and keeping friends.
   c. be anxious to please others, so that they will gain acceptance.
   d. *All of the above are correct.

$600
Prenatal alcohol exposure correlates with increased risk for
   a. *depression.
   b. obesity.
   c. compulsive gambling disorders.
   d. All of the above are correct.

$800
What can you do to help a pregnant woman avoid alcohol?
   a. Encourage and support the woman’s decision to avoid alcohol.
   b. Help her to avoid situations where alcohol is present.
   c. Stop drinking, as well.
   d. *All of the above are correct.

$1000
What percentage of pregnancies is estimated to be unplanned?
   a. 80%
   b. *50%
   c. 10%
   d. 2%
Category 5: What's the price?

$200
What are examples of the extra costs the family must absorb to care for an individual with alcohol-related birth defects?
   a. medical costs
   b. lost wages on the part of the care giver
   c. special services
   d. *All of the above are correct.

$400
According to the National Organization on Fetal Alcohol Syndrome (NOFAS), the number of infants affected by alcohol-related birth defects each year exceeds those of
   a. Muscular dystrophy
   b. Spina bifida
   c. Down syndrome
   d. *All of the above, combined

$600
According to the National Organization on Fetal Alcohol Syndrome (NOFAS), which substance of abuse produces the most serious neurobehavioral effects in the fetus?
   a. cocaine
   b. heroine
   c. *alcohol
   d. marijuana

$800
In his letter to the President, (see “Learning more…” of this curriculum), John Kellerman, a young man with FAS, requests
   a. higher taxes on alcoholic beverages.
   b. *improved medical and support services for individuals like himself.
   c. more substance abuse centers.
   d. All of the above are correct.

$1000
The annual estimated costs of just FAS, the most severe of the alcohol-related birth defects, in the US is in the range of
   a. *Billions of dollars
   b. 10’s of millions of dollars
   c. Millions of dollars
   d. Hundreds of thousands of dollars