HW 08

Question 1

1 pts

Anemia is a common health condition that can result from insufficient dietary iron intake. Iron is one of the rare micronutrients where different daily intakes are recommended for men and women. It has been determined that women should consume 18mg per day, while men only need to consume 8mg per day. Using the provided table of iron info for several foods, evaluate two hypothetical diets. Would these diets provide sufficient iron? 3.5 oz = 100 g

Food	mg iron/100 g food
Ground Beef	2.6
Cooked lentils	3.3
Raw spinach	2.7
Pumpkin Seeds	9
Dark Chocolate	4.2
Tofu	1.7
Eggs	1.9

Diet A	
Ground Beef	5 oz
Raw spinach	2 oz
Pumpkin Seeds	1 oz
Eggs	3 oz

Diet B	
Cooked lentils	4 oz
Raw spinach	4 oz
Dark Chocolate	2 oz
Tofu	6 oz

- Both diets provide sufficient iron for anyone.
- Diet A provides enough iron for men and women
- Diet B provides enough iron for men and women
- Both diets meets the RDA for men, but neither meets the RDA for women

Question 2

1 pts

Lycopene is a compound responsible for red color in many vegetables, most notably tomatoes. Its molecular structure is below. Does lycopene behave more like Vitamin A or Vitamin C, in terms of how our bodies absorb and store it?

- Vitamin A
- Vitamin C

Question 3

1 pts

Below is the label from a can of spray oil, like one would use to coat a pan before baking or cooking. Is this truly a zero calorie product?

- Yes, the only calories are from fiber; which doesn't count
- Yes, this is made from Olestra
- No, there is less than 1 Cal, so it is rounded down.
- No, there are a few fat calories, but the label rounded down.

Question 4

1 pts

Match the mineral class to the mass units that best represent the necessary daily intake of that class.

Macrominerals [Choose]

Microminerals [Choose]

Trace minerals [Choose]

Question 5

1 pts

Which of these pairs represent the same unit of mass?

- mg, mcg
- µg, mcg
- microgram, mg

Question 6

1 pts

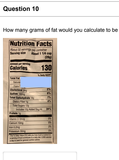
Vitamins and minerals are generally divided into which two groups?

- Lipids and triglycerides
- Microminerals and Macrominerals
- Water soluble and fat soluble
- Letter and Numeric

Question 7

1 pts

Below is the nutrition label from a packet of InstantLunch ramen.



Suppose a student decides to live on a budget and eats 8 of these per day, and nothing else. Select all the definitively true statements about this student's state of nutrition if they persist with this diet. (Assume the 2000kcal diet on the label is an appropriate set of nutritive goals for this student)

- An excessive intake of some macro- and micronutrients.
- Malnourished, due to lack of calories
- Undernourished, due to lack of calories
- Malnourished, due to lack of at least one micromineral
- Malnourished, due to lack of at least one micronutrient

Question 8

1 pts

Suppose our Ramen-eating student wants to improve their diet and at least avoid coming down with scurvy. Do a bit of research and select the food that is most likely to provide sufficient Vitamin C if eaten once per day. The RDA for Vitamin C is 60mg/day.

- 1 small orange
- 1 green bell pepper
- 1 lime

Question 9

1 pts

Using the macronutrient info, how many calories do you expect to see (per serving) for this product?

Question 10

1 pts

How many grams of fat would you calculate to be in a serving of this product?

Question 11

1 pts

The fundamental idea of distillation is that liquids can be separated based on...

- boiling point
- polarity
- charge balance
- texture

Question 12

1 pts

In a distillation of fermented mash, liquor distillers typically separate the first portion of distillate. The first portion...

- is too high in methanol content because methanol has a lower boiling point than ethanol
- is too high in ethanol content and must be discarded
- is the most delicious, and distillers keep it for themselves.
- is too high in methanol content because methanol has a higher boiling point than ethanol

Question 13

1 pts

Cocktails, just like any other "drink" can have very different calorie and alcohol contents, even when they have the same name. Use the table below to answer the next two questions about margaritas.

Ingredient	ABV	Carbs (sugar g/oz)
Tequila	40%	0
Orange Liqueur	40%	8
Lime Juice	0%	1
Margarita Mix	0%	6

A traditional preparation of a margarita is made of 2 oz of tequila, 1 oz of orange liqueur, and 1 oz of lime juice. How many "standard drinks" of alcohol and how many Calories does this contain?

- 3 drinks, ~200 Cal
- 3 drinks, ~200 Cal
- 2 drinks, ~230 Cal
- 2 drinks, ~35 Cal

Question 14

1 pts

You are more likely to encounter a margarita made from a mix in a restaurant. A typical offering would be a 12 oz cocktail, made from 3 oz of tequila and 9 oz of mix. How many "standard drinks" of alcohol and how many Calories does this contain?

- 2 drinks, 410 Cal
- 2 drinks, 350 Cal
- 3 drinks, 255 Cal
- 3 drinks, 350 Cal

Question 15

1 pts

What is/are the risks associated with using sucrose instead of glycerol to support the fatty acids and make a non-digestible monster fat (Olestra)?

- inhibition of vitamin absorption
- abdominal cramping
- loose stools
- anal leakage

Question 16

1 pts

Which functional group in sucrose allowed it to be used in place of glycerol to make Olestra?

- amine
- carboxylic acid
- phenyl
- alcohol