

Contestant Number \_\_\_\_\_ Name \_\_\_\_\_

2015 Block and Bridle FFA Meats Judging Contest  
Meat Formulation Problem

50 points, 30 Minutes

**BE SURE TO USE A #2 PENCIL AND FILL IN CORRECT  
BUBBLES!**

**\*\*\*\* Round to two decimal places at each step of calculations\*\*\*\***

**USDA REGULATIONS FOR GROUND BEEF:**

**GROUND BEEF:** The terms “Ground Beef” and “Chopped Beef” are synonymous. Products must be made with fresh and/or frozen beef with or without seasoning and without the addition of fat as such and shall contain no more than 30% fat. It may contain beef cheek not to exceed 25%. It may contain added water, binders or extenders. Heart and tongue meat are not acceptable as ingredients. The Technical Requirements Schedule (TRS) – GB 2013 requires potential contracts to designate, in their technical proposal, a laboratory to conduct microbiological testing of boneless beef.

Assume that you are a production supervisor at a large meat processing company. You have won the bid to make “VT Beef”. The following are company policies that must be followed to make “VT Beef”.

1. All fresh products must be stored at a temperature not exceeding 33°F.
2. No variety meat may be used.
3. No products over 3 days old may be used.
4. The finished product must be made of all beef.
5. The least cost shall be determined and performed on acceptable ingredients to select the lowest cost combination of products which meet all ground beef guidelines.

You have received an order for “VT Beef” with the following order specifications;

- The desired fat content of the finished product is 17%
- The batch size is 3500 pounds
- It will be manufactured and processed on March 21, 2015.

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### Boneless Meats Available

Material	Slaughter Date	Temperature °F	Fat Content %	Price (\$ dollars per pound)
Beef Sirloin	March 20, 2015	33 °F	15%	\$3.25
70 % Lean Trim	March 20, 2015	32 °F	30%	\$2.10
Beef Heart	March 18, 2015	33 °F	22%	\$0.55
Bull Meat	March 19, 2015	32 °F	12%	\$0.70
Pulled Pork	March 19, 2015	34 °F	16%	\$0.85
50% Lean Trim	March 20, 2015	33 °F	50%	\$1.85
Beef Round	March 17, 2015	33 °F	13%	\$1.55
Beef Chuck	March 18, 2015	32 °F	27%	\$2.00

Please select the correct combination and fill it in on the appropriate spot on your score sheet.

01. Beef Chuck and Bull Meat at \$1.13/lb
02. 70% Lean Trim and Beef Round at \$1.68/lb
03. Beef Chuck and Beef Round at \$1.68/lb
04. 50% Lean Trim and Beef Sirloin at \$3.04/lb
05. Bull Meat and Beef Heart at \$0.63/lb
06. Beef Sirloin and Beef Chuck at \$3.04/lb
07. 50% Lean Trim and Beef Round at \$1.58/lb
08. 70% Lean Trim and Pulled Pork at \$0.94/lb
09. Beef Heart and Beef Sirloin at \$2.48/lb
- 10. Bull Meat and 50% Lean Trim at \$0.85/lb**

Please select the best answer for each question. Bubble the answer in on your scantron.

- \_\_\_\_\_ 1. How many pounds of bull meat are in the final product?  
A. **3038 lbs**      B. 2333 lbs      C. 1750 lbs      D. 0 lbs
- \_\_\_\_\_ 2. Which ingredient did not meet the company's freshness requirements?  
A. Pulled Pork      B. Beef Chuck      **C. Beef Round**      D. 70% Lean Trim
- \_\_\_\_\_ 3. How many pounds of 70% Lean Trim are in the final product?  
A. 946 lbs      B. 823 lbs      C. 248 lbs      **D. 0 lbs**
- \_\_\_\_\_ 4. How many pounds of 50% Lean Trim are in the final product?  
A. 101 lbs      B. 200 lbs      C. 378 lbs      **D. 462 lbs**
- \_\_\_\_\_ 5. How many pounds of lean meat are in the finished batch?  
A. **2905 lbs**      B. 2715 lbs      C. 1870 lbs      D. 595 lbs
- \_\_\_\_\_ 6. Which ingredient did not meet the company's temperature requirement?  
A. Beef Heart      **B. Pulled Pork**      C. Beef Round      D. Bull Meat