

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

2014 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 “VL Beef”. The following are company policies that must be followed to make “VL 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 “VL Beef” with the following order specifications;

- The desired fat content of the finished product is 17%
- The batch size is 3000 pounds
- It will be manufactured and processed on March 20, 2014.

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### Boneless Meats Available

Material	Slaughter Date	Temperature F	Fat Content %	Price (\$ dollars per pound)
80 % Lean Trim	March 20, 2014	33 F	20%	\$2.15
70 % Lean Trim	March 20, 2014	33 F	30%	\$2.05
50 % Lean Trim	March 18, 2014	33 F	50%	\$1.95
Boxed Sirloins	March 15, 2014	32 F	14%	\$3.20
Beef Tongue meat	March 19, 2014	33 F	12%	\$1.25
Pulled Pork Meat	March 20, 2014	33 F	15%	\$0.82
Beef Round	March 19, 2014	33 F	10%	\$1.35
Boneless Beef Chuck	March 18, 2014	32 F	18%	\$2.10

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

01. 80% Lean Trim and Boxed Sirloins at \$2.68/lb
02. 80% Lean Trim and Beef Round at \$1.91/lb
03. 70% Lean Trim and Boxed Sirloins at \$2.98/lb
04. Beef Tongue Meat and 70% Lean Trim at \$1.47/lb
05. **Beef Round and 70% Lean Trim at \$1.60/lb**
06. 50% Lean Trim and Boxed Sirloins at \$3.10/lb
07. Beef Tongue Meat and 50% Lean Trim at \$1.34/lb
08. Beef Round and 50% Lean Trim at \$1.85/lb
09. Boxed Sirloins and Boneless Beef Chuck at \$2.38/lb
10. Beef Round and Boneless Beef Chuck at \$2.01/lb

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

- \_\_\_ 1. Which ingredients did not meet company freshness requirements?  
A. Pulled Pork B. Beef Round C. **Boxed Sirloins** D. None of the above
  
- \_\_\_ 2. How many pounds of beef round is in the finished batch?  
A. 900 lbs B. **1950 lbs** C. 510 lbs D. 390 lbs
  
- \_\_\_ 3. How many pounds of the final product are made from 70% Lean Trim?  
A. 0 lbs B. **1050 lbs** C. 840 lbs D. 570 lbs
  
- \_\_\_ 4. How many pounds of the final product are made from 50% Lean Trim?  
A. **0 lbs** B. 875 lbs C. 3000 lbs D. 2000 lbs
  
- \_\_\_ 5. Pulled Pork was not used because?  
A. Temperature B. Freshness C. **It was not fresh or frozen beef** D. Both a and b
  
- \_\_\_ 6. Which ingredients did not meet the company temperature requirement?  
A. Boneless Beef Chuck C. Beef Tongue  
B. 50% Lean Trim D. **All meet the requirement**