

FERTILIZER NUGGETS

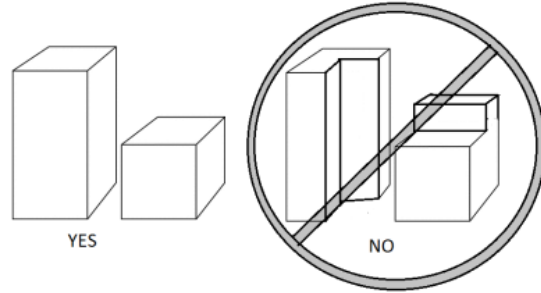
NAME _____ HR _____ /29

(THESE AREN'T YOUR GRAND-DADDY'S ROAD APPLES!)

A fertilizer company is trying to decide what shape to make their new fertilizer pellets. They want the nuggets to have the greatest surface area possible, so that it can be absorbed into the soil faster. What size should the rectangular prism be in order to have the greatest surface area?

PRODUCTION CONSTRAINTS:

- Each nugget must have a volume of 20 cubic centimeters (20cm³) -- no more and no less
- Each nugget must be a rectangular prism
- Technicians must provide data that includes **at least** 4 different surface areas



RESULTS / DATA:

VOLUME DIMENSIONS (L x W x H)	Volume of fertilizer nugget	TOTAL SURFACE AREA (the "skin" of all 6 sides)

ARGUMENT: Make a claim about what you have found. What size should the rectangular prism be in order to have the greatest surface area? Create a statement of truth that is supported by **evidence** you found in this lab. (2pts)

1. What does **surface area** mean? _____
2. How do you find surface area? _____
3. What does **volume** mean? _____
4. How do you find volume? _____
5. What is **data**? _____
6. What is a **claim**? _____
7. What is **evidence**? _____