

Design Brief
GEMS-CELL TOWERS

You are a structural engineer for GEMS-CELL. Your 2-woman team is competing to build cell phone towers in Northern Virginia.

Your Job: Design the tallest tower possible for the lowest cost. Your tower will be made of steel beams (spaghetti) and joints (mini-marshmallows.) You must anchor the cell phone dish (large marshmallow) on the top of the tower.

Materials: 15 pieces of spaghetti (beams)
 10 miniature marshmallows (joints)
 1 large marshmallow (cell phone dish)

Costs: Beams: \$100
 Joints: \$50

You can use half beams, but cannot deduct the cost of half-beams you did not use.

Your tower must be stable enough to be measured, costed, and photographed.

Team members: _____

Plan it:

Measure it: _____

Cost it out: _____beams @ \$100
 _____joints @ \$50

Total: \$_____ /tower

Total cost per inch _____
(Divide cost by inches)

BIDS

| <u>Team</u> | <u>Height</u> | <u>Cost</u> | <u>Cost/inch</u> | <u>Rank</u> |
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