

Name: _____

Class: _____

Structural Efficiency Questions

1. What is the formula for Structural Efficiency?
2. What is the structural efficiency if the maximum mass supported was 800g and the mass of the structure was 35g?
3. What is the structural efficiency if a structure had a mass of 750g and supported a 40Kg.
4. Susan and Dave had a bridge building contest. Susan's bridge had a mass of 2 Kg and held 13 Kg. Dave's bridge held 25 Kg and had a mass of 8 Kg. What was the structural efficiency of both bridges and who won the contest?
5. Laura has a mass of 50 Kg and Beth has a mass of 45Kg. Laura lifted 130 Kg and Beth lifted 145 Kg. What are their structural efficiency values and whose is better?

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6. At Rebecca's birthday party people piled her gifts on a table. During the party the table collapsed due to the mass of all the gifts. If the table had a mass of 30 Kg and the presents had a mass of 115 Kg, what was the table's structural efficiency value?

7. If an average ant has a mass of 0.003 g (3 milligrams) and is able to hold 30 times their own mass, how much mass is an ant able to hold?

8. How would you describe what structural efficiency is in your own words?

9. Create your own structural efficiency question and have a classmate answer it!