

Tower Building Activity

Name: _____

Period: _____ PC #: _____

You are allowed to work with the students in your group, but each person must turn in their work.

1) A construction company wants to build a 5-meters high tower as quickly as possible. The company has unlimited resources and an unlimited budget and is will to spend any amount to get the job done.

The tower is to be built with blocks that are 100-meters long and 100-meters wide, but only 1 meter tall. The blocks interlock on top and bottom (*like legos*). They cannot be stacked sideways.

Using special lifters, putting one stack on top of another stack takes one week regardless of how high the stakes are. What is the shortest amount of time that it will take to build the tower?

2) How about a 10-meters high tower?

3) How about a 100-meters high tower?

4) Explain the algorithm you used that minimizes the time it takes to build a tower of any size.

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5) Which tower will take more time to build, a tower that is 50-meters high or a tower that is 60-meters high? Explain your answer.

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