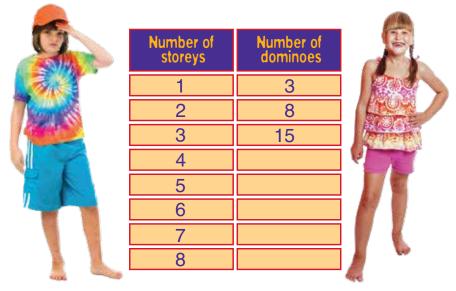
Domino Stacks

You need: dominoes (optional)

1. Barbara and Kahu are building domino-stack houses like this:



- a. How many dominoes will they need for the bottom storey of a 4-storey house?
- **b.** Find a rule that shows the relationship between the number of storeys in a domino-stack house and the number of dominoes in its bottom storey.
- c. How many dominoes would a stack of 20 storeys have in its bottom storey?
- **d.** How many storeys high is a stack that has 69 dominoes in its bottom storey?
- 2. Barbara and Kahu make the following table to help predict how many dominoes they'll need to build domino houses.
 - a. Complete their table.



- **b.** How many dominoes would Barbara and Kahu need altogether for a 10-storey domino house?
- **c. i.** Write a rule in words linking the number of storeys with the total number of dominoes.
 - ii. Write the rule using symbols. Use n for the number of storeys.
- d. Barbara and Kahu must make a 76-storey domino house to break a world record.
 - i. How many dominoes do they need?
 - ii. Suppose they can find only 4 899 dominoes. How many storeys can they build?