

## Challenge

### Tower to Tower

Use a number cube (labeled 1–6) and 30 connecting cubes. Roll the number cube and take that many connecting cubes. Build a tower. Continue until you have built 5 towers in this way.

1. Draw the 5 towers that you built.

Tower 1	Tower 2	Tower 3	Tower 4	Tower 5
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2. Complete the table.

Tower	Number of Cubes
1	
2	
3	
4	
5	

3. Compare Tower 1 to Tower 5. Use the  $>$  or  $<$  symbols.

\_\_\_\_\_

4. Compare Tower 2 to Tower 4. Use the  $>$  or  $<$  symbols.

\_\_\_\_\_

5. **Extend Your Thinking** Can Tower 6 have 7 connecting cubes? Explain your thinking.

\_\_\_\_\_  
\_\_\_\_\_

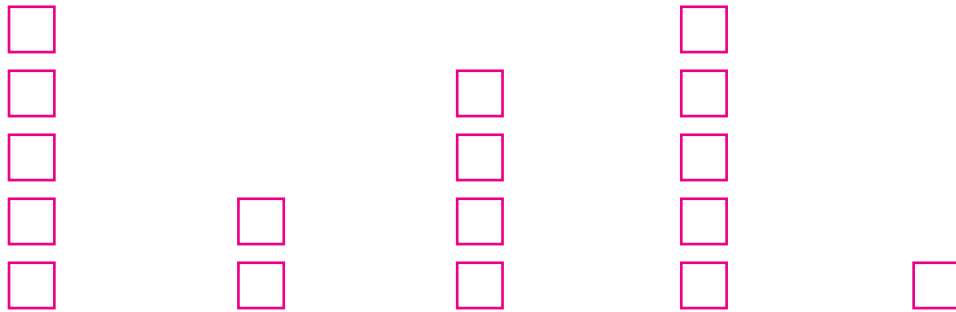
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Use a number cube (labeled 1–6) and 30 connecting cubes. Roll the number cube and take that many connecting cubes. Build a tower. Continue until you have built 5 towers in this way.

1. Draw the 5 towers that you built.

**Drawings will vary. Possible answer shown.**



Tower 1

Tower 2

Tower 3

Tower 4

Tower 5

2. Complete the table. **Tables will vary. Sample data given.**

Tower	Number of Cubes
1	5
2	2
3	4
4	6
5	1

3. Compare Tower 1 to Tower 5. Use the  $>$  or  $<$  symbols.

**Possible answer:**  
**Tower 1  $>$  Tower 5**

4. Compare Tower 2 to Tower 4. Use the  $>$  or  $<$  symbols.

**Possible answer:**  
**Tower 2  $<$  Tower 4**

5. **Extend Your Thinking** Can Tower 6 have 7 connecting cubes? Explain your thinking. **No. Possible explanation: The most connecting cubes any tower can have is 6 because that's the greatest number on the number cube.**