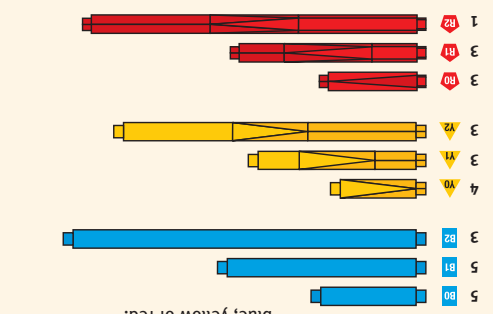


# PYRAMID POWER

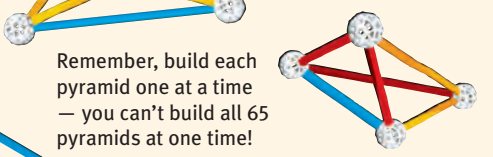
## BRAINBUSTER

### PARTS INVENTORY

Here's a mathematical mystery rooted in the wisdom of the ancient Greeks, Egyptians and Babylonians. Inside the net bag are 37 Zome pieces that can be rearranged 65 different ways using 16 or fewer pieces — to build 65 unique pyramids. Can you find them all? Build them one at a time using the chart on the left, checking off each pyramid as you solve it. (You cannot build all 65 pyramids at the same time.)



Open the other side of this sheet whenever you're ready to check your solution or when you get stuck.



**Good Luck!**

For more information about Zometool, call 1-855-ZOMETOOL (855-966-3866) or visit [zometool.com](http://zometool.com)!

Zome is based on the 31-Zone Structural System, discovered by Steve Baer, Zomeworks Corporation, Albuquerque, NM USA.

- \* PUZZLER BEWARE:**
- 1. Mirror Images** — If your version is a mirror image of one you see pictured, it counts as one of the 65 pyramids.
  - 2. Proportional Pyramids** — Sometimes you can make two different sizes of the same pyramid, but it still counts as one of the 65. (If you find one, each strut is just one size bigger than the one shown in the chart and on the key.)
  - 3. Flat Pyramids** — Pyramids where all the balls lie in the same plane don't count.

# PYRAMID POWER

## BRAINBUSTER

### 65 PYRAMIDS

**TOP SECRET**  
Solution Inside!



**Balls**

**B0** **B1** **B2** **A0** **A1** **A2** **B3** **B4** **B5** **B6** **B7**

#	Balls	B0	B1	B2	A0	A1	A2	B3	B4	B5	B6	B7
1	4	1	1	1	1	1	1	1	1	1	1	1
2	4	1	1	1	1	1	1	1	1	1	1	1
3	4	1	1	1	1	1	1	1	1	1	1	1
4	4	1	1	1	1	1	1	1	1	1	1	1
5	4	1	1	1	1	1	1	1	1	1	1	1
6	4	1	1	1	1	1	1	1	1	1	1	1
7	4	1	1	1	1	1	1	1	1	1	1	1
8	4	1	1	1	1	1	1	1	1	1	1	1
9	4	1	1	1	1	1	1	1	1	1	1	1
10	4	1	1	1	1	1	1	1	1	1	1	1
11	4	1	1	1	1	1	1	1	1	1	1	1
12	4	1	1	1	1	1	1	1	1	1	1	1
13	4	1	1	1	1	1	1	1	1	1	1	1
14	4	1	1	1	1	1	1	1	1	1	1	1
15	4	1	1	1	1	1	1	1	1	1	1	1
16	4	1	1	1	1	1	1	1	1	1	1	1
17	4	1	1	1	1	1	1	1	1	1	1	1
18	4	1	1	1	1	1	1	1	1	1	1	1
19	4	1	1	1	1	1	1	1	1	1	1	1
20	4	1	1	1	1	1	1	1	1	1	1	1
21	4	1	1	1	1	1	1	1	1	1	1	1
22	4	1	1	1	1	1	1	1	1	1	1	1
23	4	1	1	1	1	1	1	1	1	1	1	1
24	4	1	1	1	1	1	1	1	1	1	1	1
25	4	1	1	1	1	1	1	1	1	1	1	1
26	4	1	1	1	1	1	1	1	1	1	1	1
27	4	1	1	1	1	1	1	1	1	1	1	1
28	4	1	1	1	1	1	1	1	1	1	1	1
29	4	1	1	1	1	1	1	1	1	1	1	1
30	4	1	1	1	1	1	1	1	1	1	1	1
31	4	1	1	1	1	1	1	1	1	1	1	1
32	4	1	1	1	1	1	1	1	1	1	1	1
33	4	1	1	1	1	1	1	1	1	1	1	1
34	4	1	1	1	1	1	1	1	1	1	1	1
35	4	1	1	1	1	1	1	1	1	1	1	1
36	4	1	1	1	1	1	1	1	1	1	1	1
37	4	1	1	1	1	1	1	1	1	1	1	1
38	4	1	1	1	1	1	1	1	1	1	1	1
39	4	1	1	1	1	1	1	1	1	1	1	1
40	4	1	1	1	1	1	1	1	1	1	1	1
41	4	1	1	1	1	1	1	1	1	1	1	1
42	4	1	1	1	1	1	1	1	1	1	1	1
43	4	1	1	1	1	1	1	1	1	1	1	1
44	4	1	1	1	1	1	1	1	1	1	1	1
45	4	1	1	1	1	1	1	1	1	1	1	1
46	4	1	1	1	1	1	1	1	1	1	1	1
47	4	1	1	1	1	1	1	1	1	1	1	1
48	4	1	1	1	1	1	1	1	1	1	1	1
49	4	1	1	1	1	1	1	1	1	1	1	1
50	4	1	1	1	1	1	1	1	1	1	1	1
51*	4	1	1	1	1	1	1	1	1	1	1	1
52*	4	1	1	1	1	1	1	1	1	1	1	1
53*	4	1	1	1	1	1	1	1	1	1	1	1
54*	4	1	1	1	1	1	1	1	1	1	1	1
55*	4	1	1	1	1	1	1	1	1	1	1	1
56	4	1	1	1	1	1	1	1	1	1	1	1
57	4	1	1	1	1	1	1	1	1	1	1	1
58	4	1	1	1	1	1	1	1	1	1	1	1
59	4	1	1	1	1	1	1	1	1	1	1	1
60	4	1	1	1	1	1	1	1	1	1	1	1
61	4	1	1	1	1	1	1	1	1	1	1	1
62	4	1	1	1	1	1	1	1	1	1	1	1
63	4	1	1	1	1	1	1	1	1	1	1	1
64	4	1	1	1	1	1	1	1	1	1	1	1
65	4	1	1	1	1	1	1	1	1	1	1	1

**DO NOT OPEN THIS SHEET UNTIL YOU'RE READY TO SEE THE ANSWERS!**

Check off each pyramid as you solve it on the chart above. You can use the illustrations on the reverse side to check each solution as you solve it, or you can wait to look until you get stuck.

\*NOTE: 51 AND 54, AND 52 AND 53 USE THE SAME PARTS TO MAKE DIFFERENT MODELS.

# PYRAMID POWER

## BRAINBUSTER

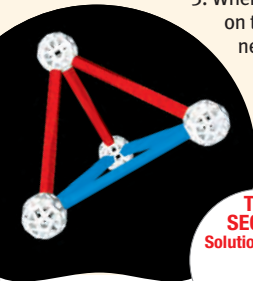
### Can You Build all 65?

Using the enclosed Zometool balls and struts, try to find 65 different\* triangular pyramids. (See "Puzzler Beware" at right.) A pyramid with a triangular base is called a **tetrahedron** — meaning "4 faces." You can see several examples of triangular pyramids on this page.

### How to Solve the Pyramid Power Brainbuster:

1. Look at the chart in the following section and select the balls and struts you need in order to make the first pyramid.
2. Try to fit the parts together so they form a triangular pyramid made of four triangles joined edge to edge.
3. When you succeed, check it off on the chart, and go on to the next pyramid.

If you get stuck, the answers illustrated are on the other side of this sheet. Use them to confirm each solution.



**TOP SECRET**  
Solution Inside!

art and science at play

# ZOMETOOL

Can you solve the mystery of the ages?

# BRAINBUSTER

# PYRAMID POWER

For ages 8 and older.

Can YOU solve the mystery of the ages?

Behold! A mathematical mystery rooted in the wisdom of the Ancients — the Babylonians, the Egyptians and the Greeks. Hidden inside are 65 unique pyramids\*. Each one can be built using only 76 (or fewer) parts. (They are based on the magical relationship between the numbers 7, 3 and 5.)

Can you find them all?

(Note: All 65 pyramids cannot be built at the same time.)

MADE IN USA from Zometool models

097-431-20020

WARNING: Choking Hazard