

New Concepts

- Inductive Reasoning

Problem Set #18

“The grand thing is to be able to reason backwards.”

- Arthur Conan Doyle

New Postulates and Theorems

Exercises:

p.112 #1-14, p.98 #28-31

Problems:

17-1 Counting Triangles

How many triangles of all sizes are in an $N \times N \times N$ triangle?

When $N = 1$?

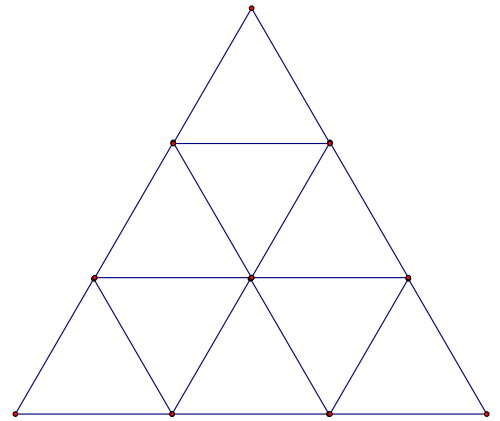
When $N = 2$?

When $N = 3$?

When $N = 4$?

When $N = 5$?

Can you inductively predict $N = 6, 7, \text{ or } 10$?



an example of $N = 3$