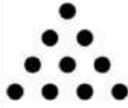


## 12.1 Worksheet

The table shows the first four triangular numbers.

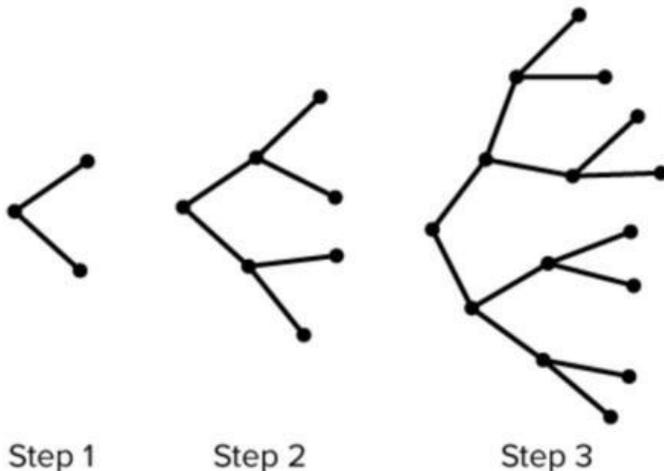
			
1	2	3	4
1	3	6	10

The sixth triangular number is \_\_\_\_\_.

Choose the conjecture that describes how to find the 7th term in the sequence 4, 20, 36, 52, ...

- Multiply 52 by 9.
- Multiply 16 to 32.
- Add 32 to 52.
- Add 48 to 52.

How many more line segments will be needed to be added to Step 3 to create Step 4 of the sequence?



\_\_\_\_\_ segments.

Fill in the blanks using the available answer choices.

Complete each statement.

One example is \_\_\_\_\_ to prove a statement true.  
(Blank 1)

One counterexample is \_\_\_\_\_ to prove a statement false.  
(Blank 2)

Blank 1 options

- sufficient
- insufficient

Blank 2 options

- sufficient
- insufficient