

**Product of 4 Consecutive Integers Plus 1:**

A. From algebra we know:

$$n \times (n+1) \times (n+2) \times (n+3) + 1 = [n \times (n+3) + 1]^2$$

B. Using numbers instead of variables we get:

1. Multiply the first and last of the consecutive numbers together.
2. Add 1 to step 1.
3. Square the result of step 2.

Ex [1]  $5 \times 6 \times 7 \times 8 + 1 =$  \_\_\_\_\_.

- a)  $5 \times 8 = 40$ .
- b)  $(40 + 1)^2 = 1681$ .
- c) The answer is 1681.

Ex [2]  $9 \times 10 \times 11 \times 12 + 1 =$  \_\_\_\_\_.

- a)  $9 \times 12 = 108$ .
- b)  $(108 + 1)^2 = 11881$ . See [Multiplied Numbers Greater Than 100](#).
- c) The answer is 11881.