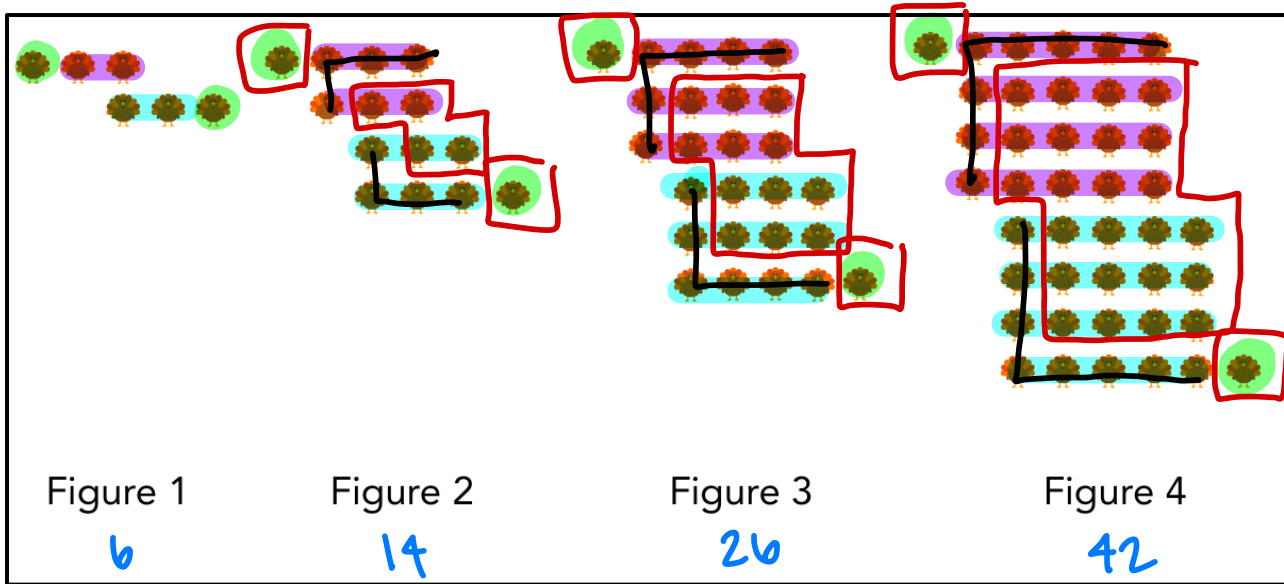


Turkey Trot



Figures 1-4 of a visual sequence of turkeys are shown.

1. How do you see the pattern growing?

I see an "L" being added to the top + bottom of the previous pattern and the corner turkey being cut off and then re-added.

2. What would Figure 5 look like? Can you determine the number of turkeys in Figure 5 without counting them one by one?

6 across, 5 down, 1 corner, then duplicated.

Figure 5 has $2(5(6) + 1) = 62$ turkeys

3. How many turkeys would be in Figure 10?

Figure 10 has $2(10(11) + 1) = 222$ turkeys

4. How many turkeys would be in Figure n ? Show how your expression connects to the visual.

$$2(n(n+1) + 1)$$

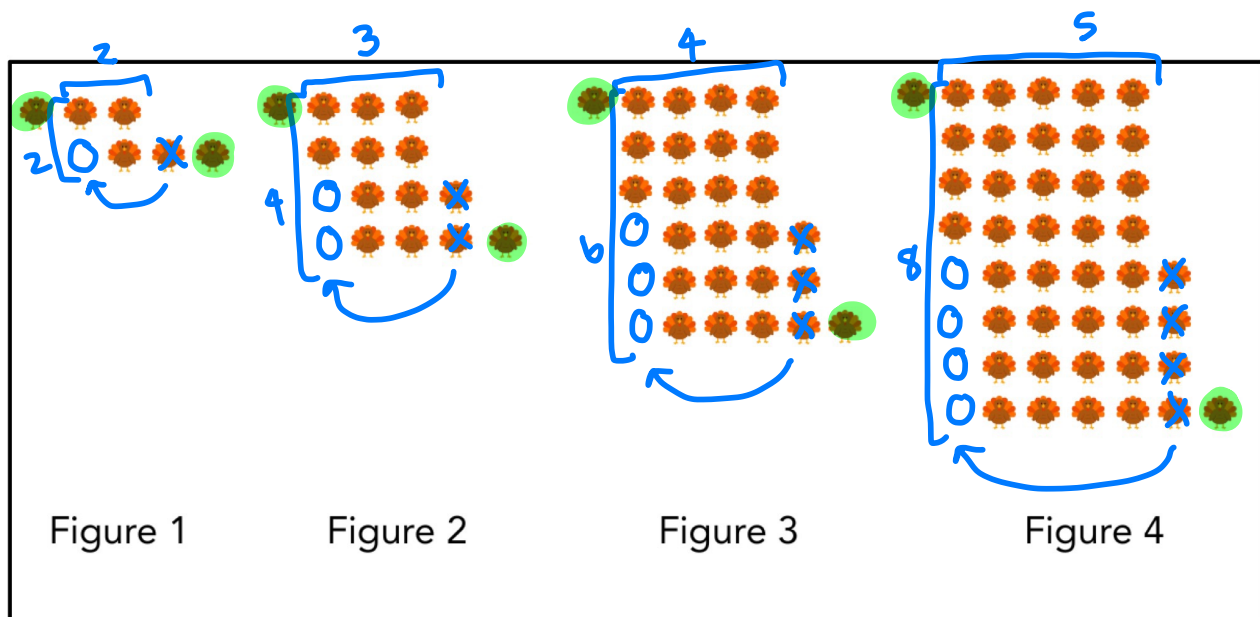


Figure n has $(n+1)(2n) + 2$ turkeys

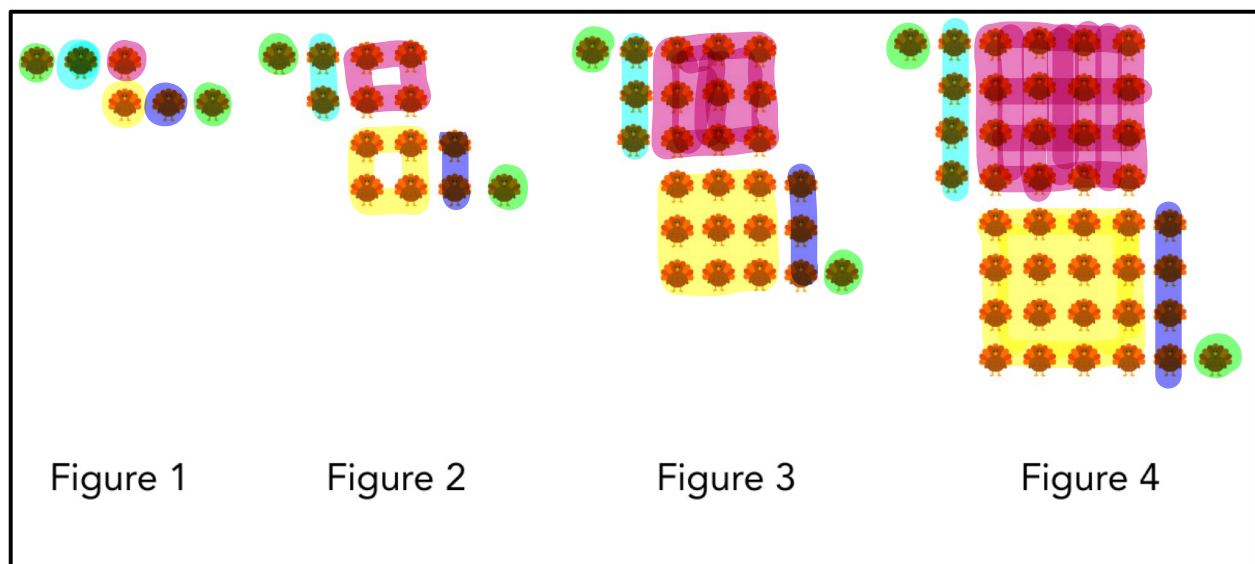


Figure n has $2n^2 + 2n + 2$ turkeys