

# manipul8

**Tangible Modeling Over Distance: Using Computer Vision to Support Distal Collaborative Professional Learning**

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# Quadratics

Standard Form

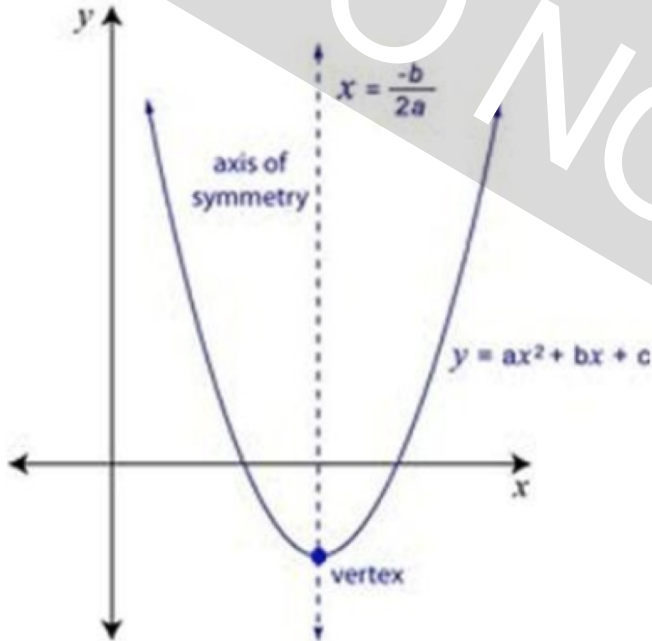
$$f(x) = ax^2 + bx + c$$

Quadratic Formula

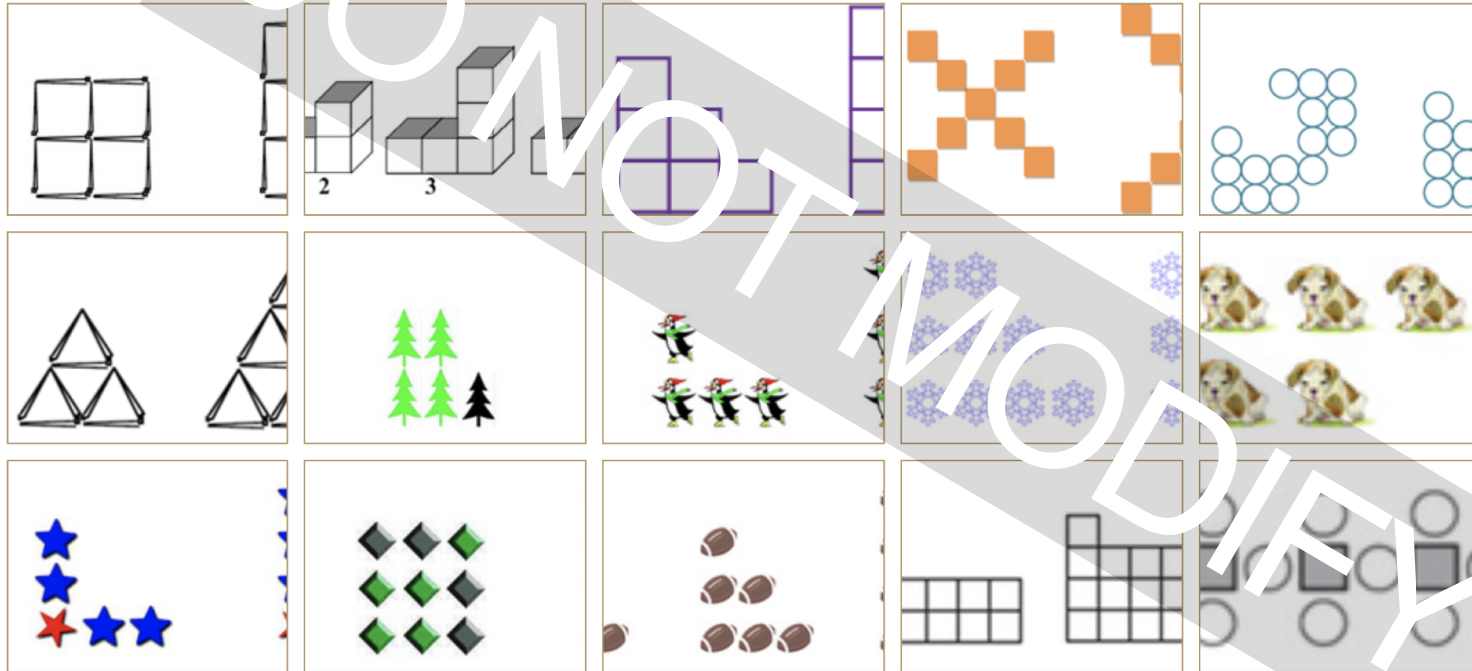
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Vertex Formula

$$\left( -\frac{b}{2a}, \left( -\frac{b}{2a} \right) \right)$$



# Visual Patterns (Linear & Quadratic)

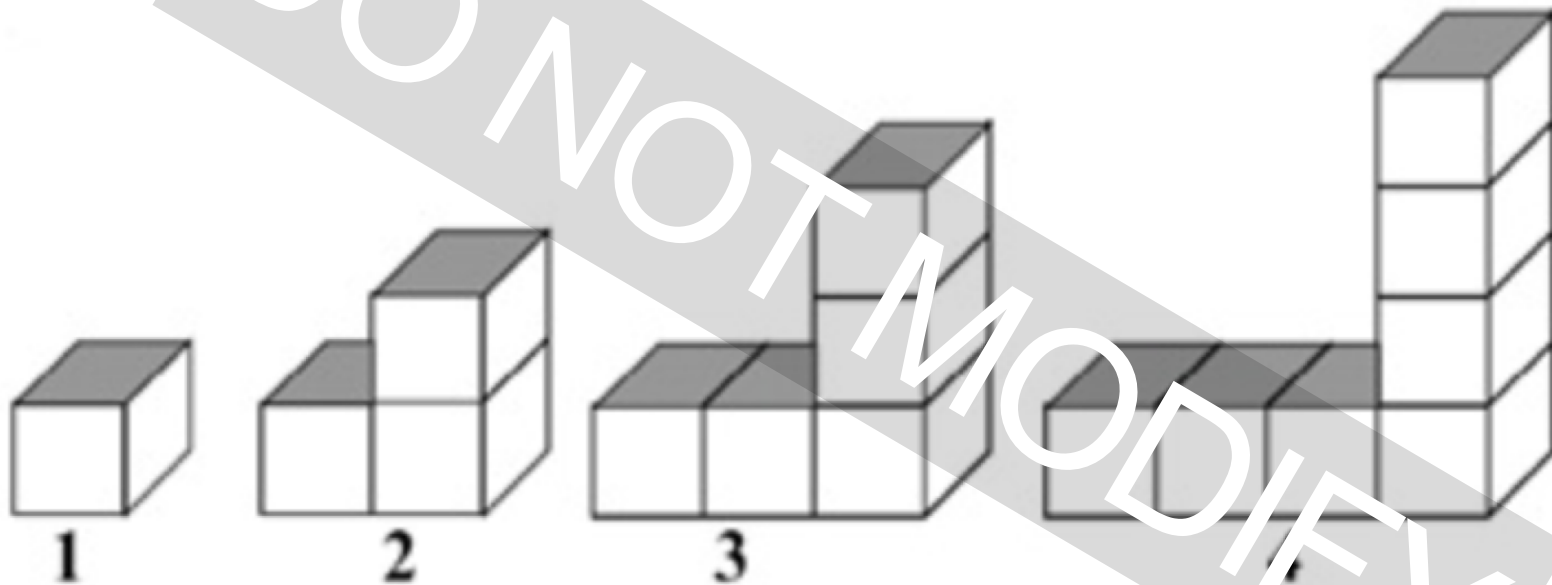


## Visual Pattern - Task 1

Using the tiles and representation mat provided, place the tiles on the mat, using color to show which tiles were generated by each term.

$$2n + 1$$

## Visual Pattern - Task 2



## Visual Pattern - Task 3

Using the tiles, create a representation for the expression that follows. Please use color to show which tiles were generated by each term.

$$n^2 + n + 3$$

# Visual Pattern - Task 4



Figure 1

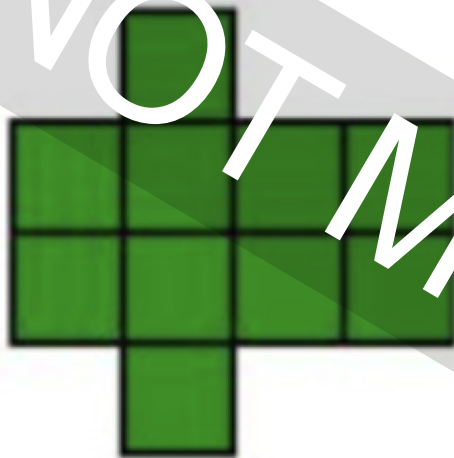


Figure 2

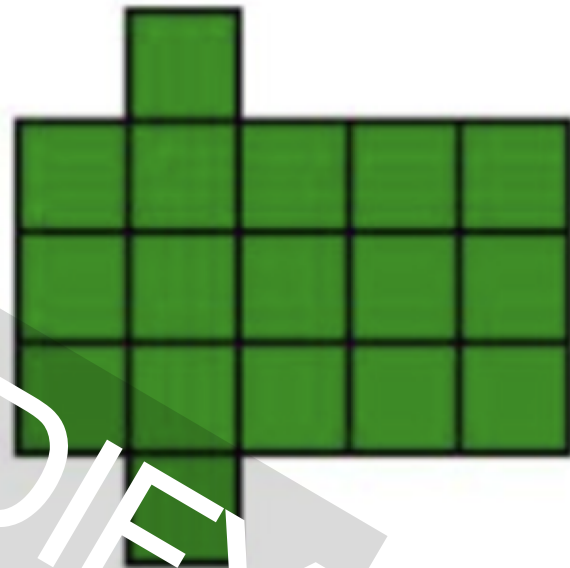
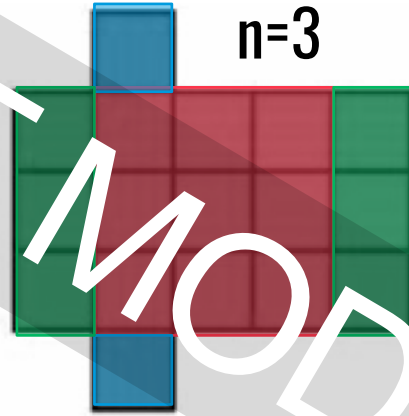
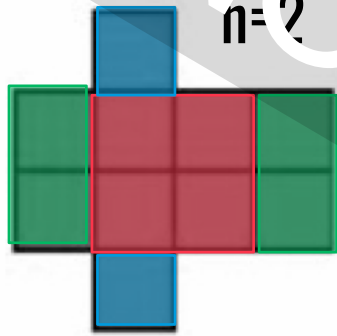
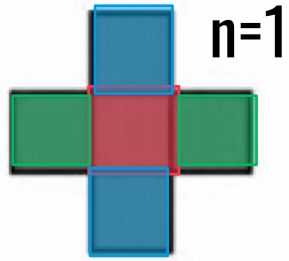


Figure 3

# Visual Pattern - Task 4



$$n^2 + 2n + 2$$



DO NOT MODIFY

