Area Under Curve

**Constants**
- func
- X_LOWER
- X_UPPER
- WIDTH = X_UPPER – X_LOWER
- NUM_RECTANGLES
- RECT_WIDTH = WIDTH / NUM_RECTANGLES

**Variables**
- i
- areas[]
- sum

**Serial Algorithm**
- for each rectangle (i),
  - calculate the area (RECT_WIDTH * func( i * RECT_WIDTH )).
  - insert the area into the array.
- sum the array.
- print the sum.

**func** = \( x^2 \)