

### Algorithm to select even/odd drawing method

1. Compute the expected diameter of the circle from the number of tiles to draw as:  
 $\text{Sqrt}(4 * \text{tiles} / \pi)$  rounded to closest integer
2. If computed value is odd, draw an odd circle, if computed value is even, draw an even circle.

### Algorithm to select next tile in the sequence

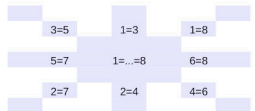
1. Compute  $4x^2 + 4y^2$  values in the eighth of the plane where  $y \geq 0, x \geq y$
2. Select the lowest value with free space for tiles
3. If several tiles have the same value, select the one closest to the top: highest y, then lowest x
4. After selecting a tile at position (x,y) in first quarter, select next distinct tiles found at symmetrical positions (-x,-y), (-x,y), (x,-y), (-y,x), (y,-x), (-y,-x), (y,x) in this order:



### Special cases

Center: (x=0, y=0), 1=2=3=4=5=6=7=8

Axes: x=0, y=0, x=y, x=-y



## **EnsAD MEDEA (2014)**

Algorithm to pack squares into circular shapes