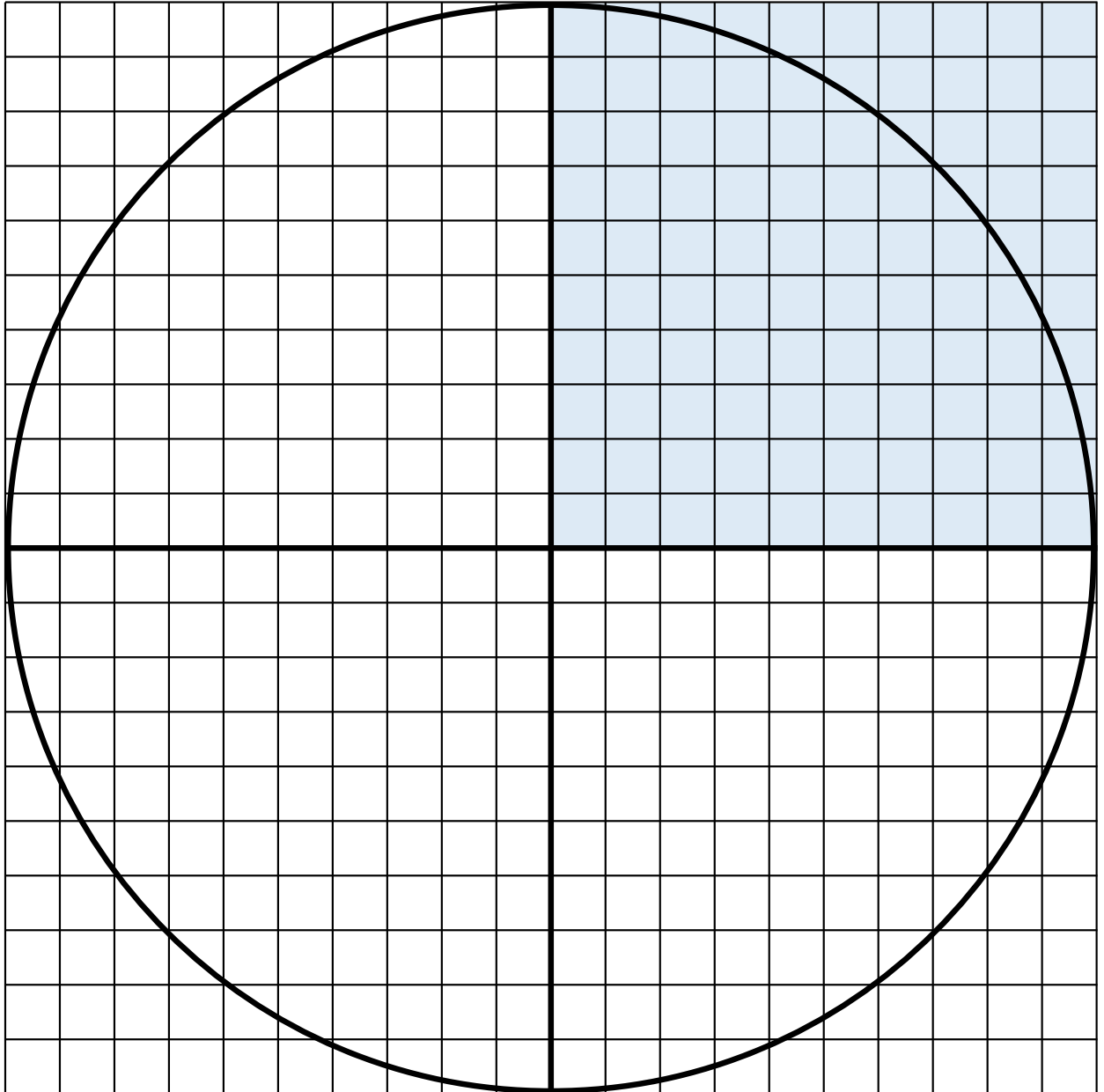


# The Corner Square

Name: \_\_\_\_\_

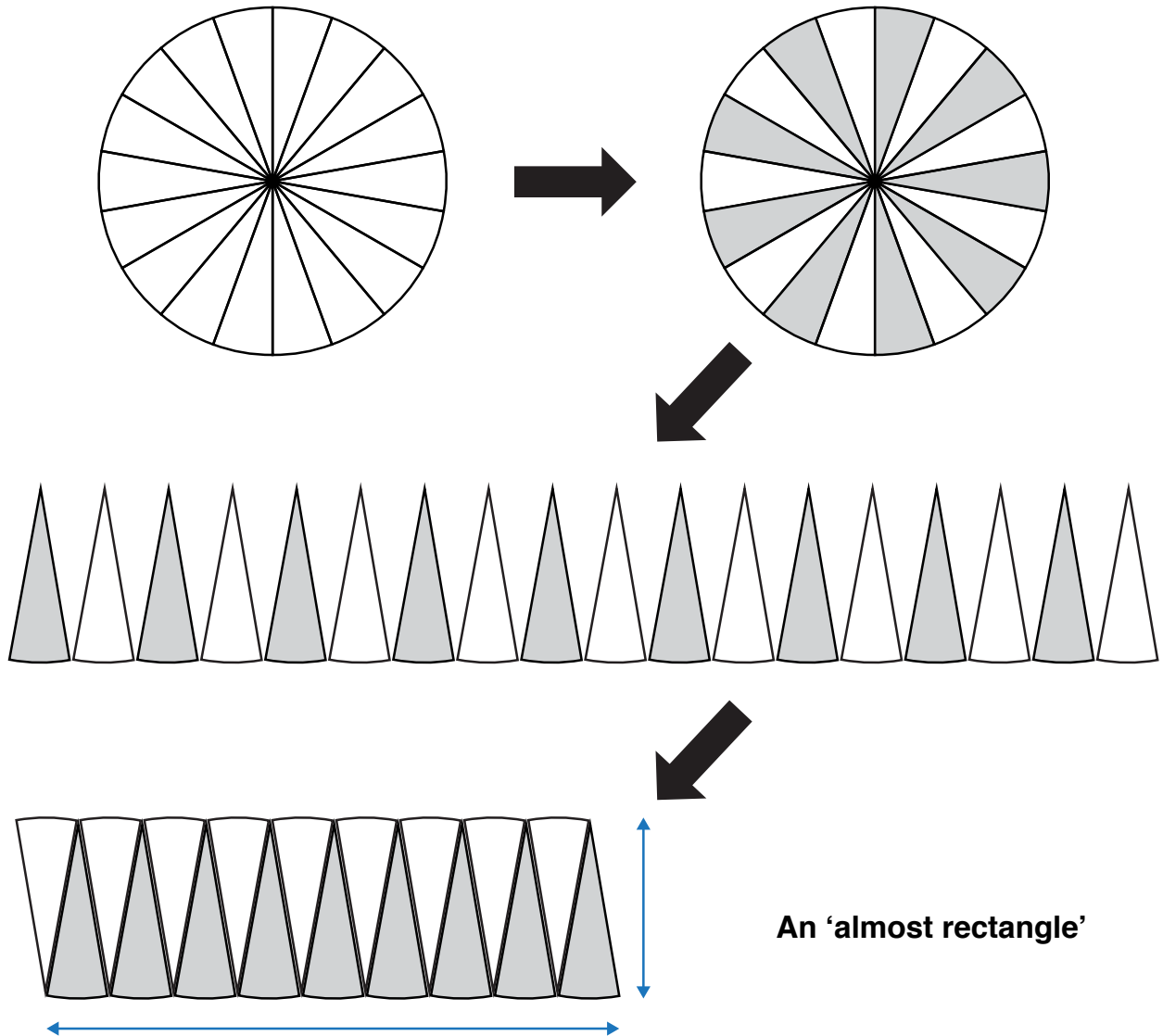


## Guiding questions

- If the radius of the circle is  $r$ , what is the area of the shaded 'corner square'?
- How can you use the grid to work out how many corner squares fit into the circle?

# Slices of Pie

Name: \_\_\_\_\_



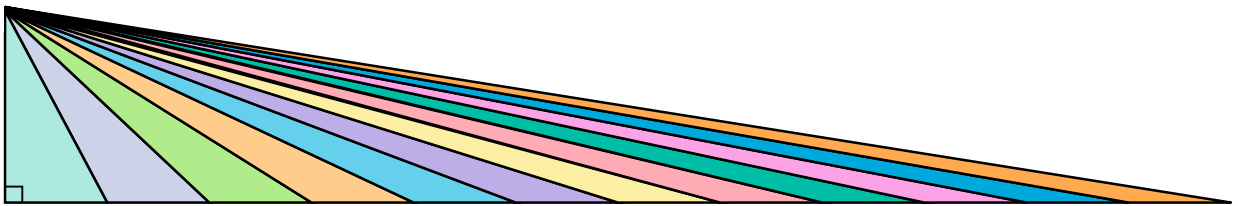
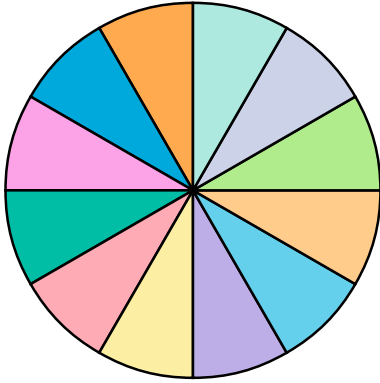
An 'almost rectangle'

## Guiding questions

- What happens to the shape of the 'almost rectangle' when you increase the number of slices of the circle?
- Why is the length of the 'almost rectangle'  $\pi r$  and the width  $r$ ?

# Archimedes' Polygons

Name: \_\_\_\_\_

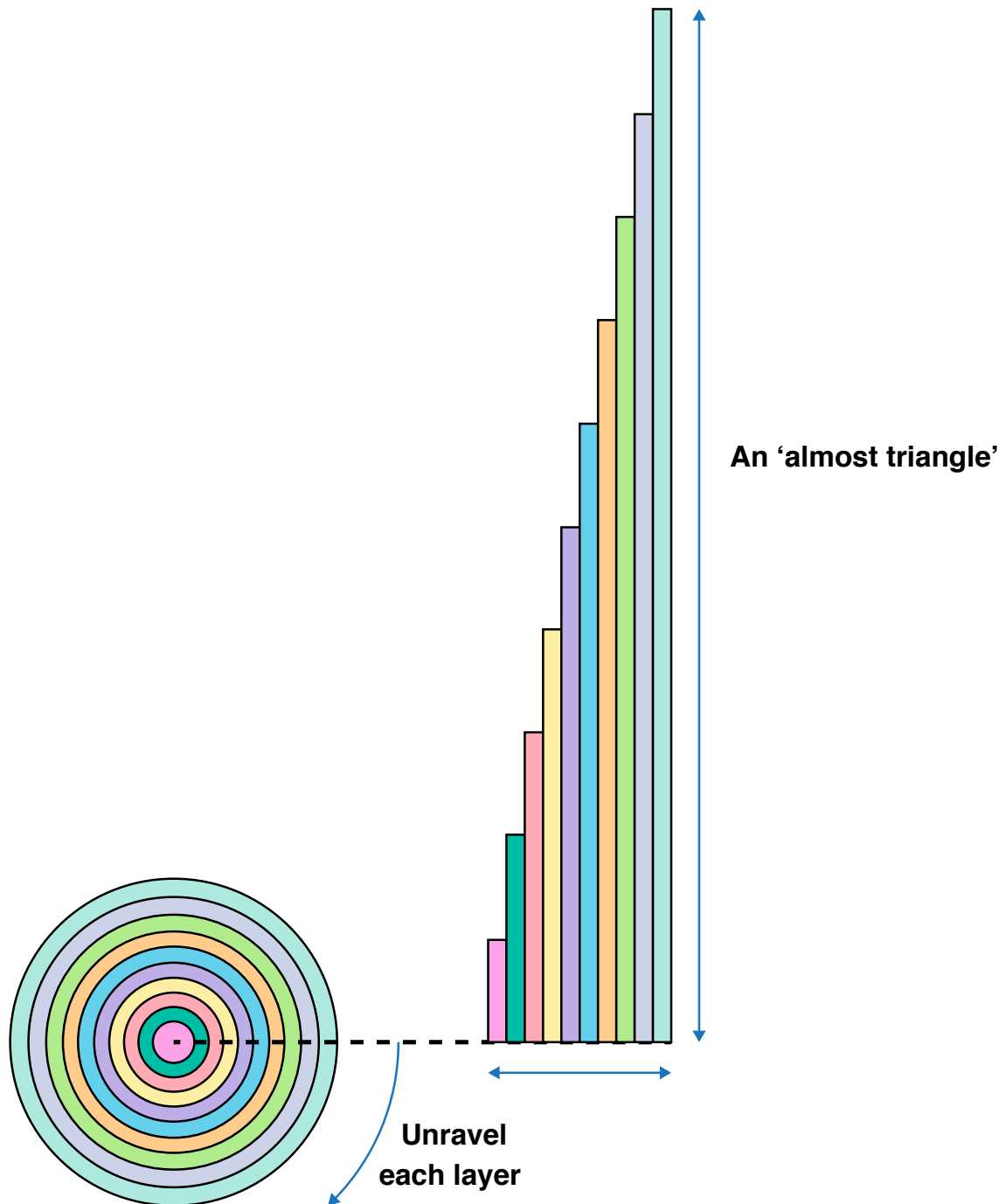


## Guiding questions

- Why is the area of each small triangle in the large right-angled triangle the same?
- What happens to each sector of the circle when you increase the number of line segments along the base of the large triangle?

# Unravelling the Circle

Name: \_\_\_\_\_



## Guiding questions

- What happens as you decrease the width of the rings in the circle?
- Why is the base of the 'almost triangle'  $r$  and the height  $\pi d$ ?