

Circle with Radius

Activity 2. Radius Square

- 1) Cut out the circle.
- 2) Cut out the first colored square and fit it entirely inside the circle.
- 3) Cut out the second colored square and fit it inside without overlapping the previous color. You will have to cut parts of the second square so that there are no parts hanging out, and fit them inside the circle. You can fit the pieces of the squares in other ways. Use the entire second square before using the third colored square.
- 4) Continue with the third colored square. Make sure there are no overlaps and that there are no parts hanging outside the circle.
- 5) After you are done fitting the third colored square inside the circle, see whether there is still room for part of the fourth square (the one with the grid).
- 6) Save the remainder of the fourth square and use the grid to estimate how much of the fourth square you were able to fit.
 - *How many squares were you able to completely fit inside the circle?*
 - *How much of the last circle were you able to fit?*
 - *Count how many of the little unit squares of the fourth radius square were actually used.*
 - *Describe the relation between the area of the radius square and the area of the circle in your own words.*
 - *Based on this activity, what would be an estimation of the value of the ratio of the areas of the circle and the radius square?*

Materials

The squares provided are radius squares of the given circle. Cut the squares and cut out the circle. Follow the instructions for Activity 1.

