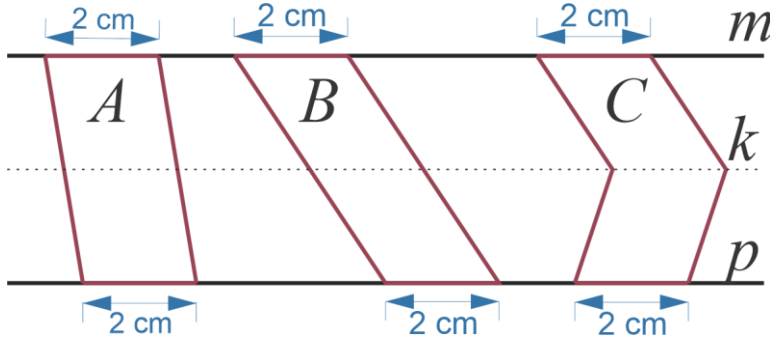
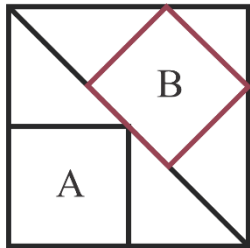
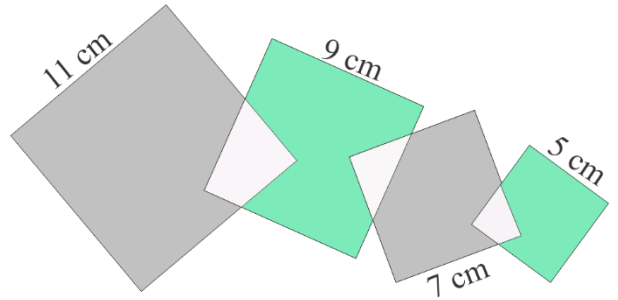


1. Lines  $m, k, p$  are parallel. Which polygon has a bigger area?



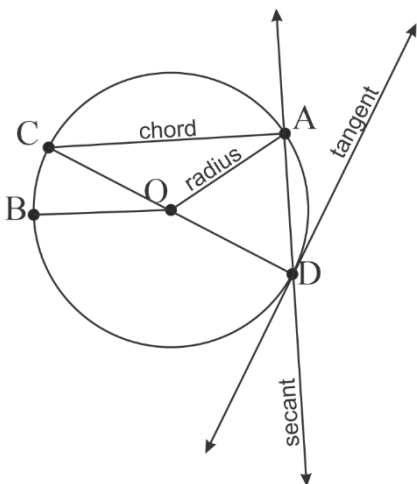
2. Four squares are positioned as shown, overlapped area are white. How much dray area is bigger than the green area.



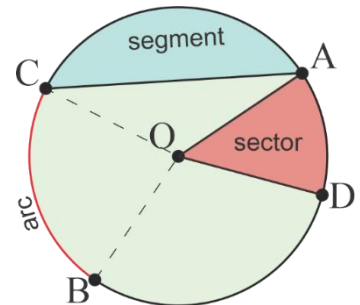
3. Two squares lie inside a large square, as shown in the figure. The side of square A is  $\frac{1}{2}$  of the side of the large square. The side of square B is  $\frac{1}{3}$  of the diagonal of the large square. What is the area of the square A if the area of the square B is 16?

**Circle.**

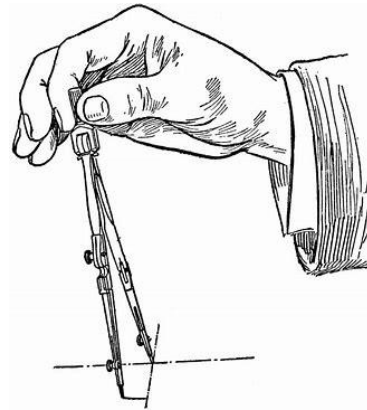
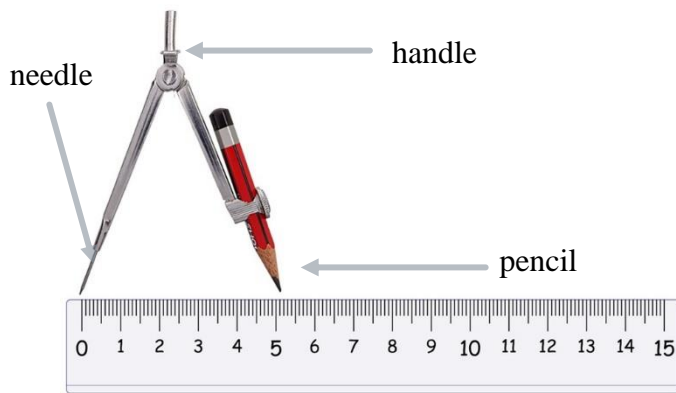
Let's define a few new words, we will used them when we will be talking about circle.



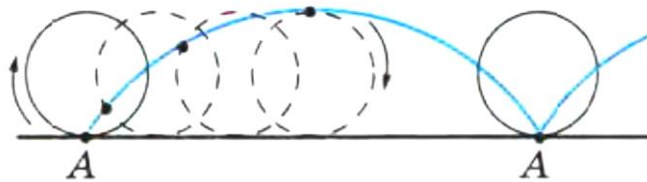
Let's define a few new words, we will used them when we will be talking about circle.



Draw a circle with the radius of 5 cm. Use compass. Open the compass for 5 cm. Put the needle of the compass into paper, holding the compass by its handle rotate the pencil around the needle.

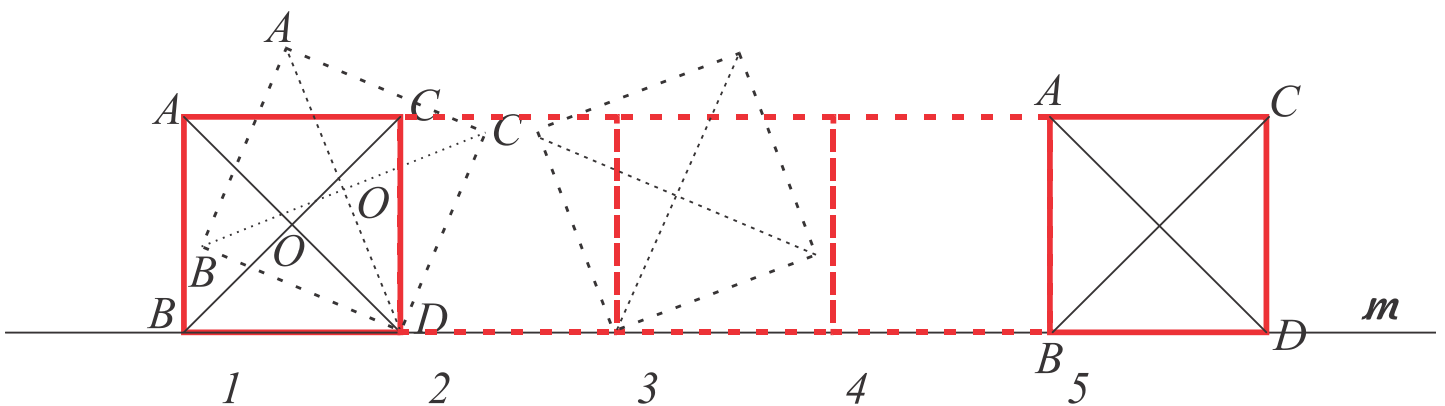


Circle is running along the line. At a starting time, point A was the point of contact of the circle and the line. The curve which point A will trace is called cycloid.



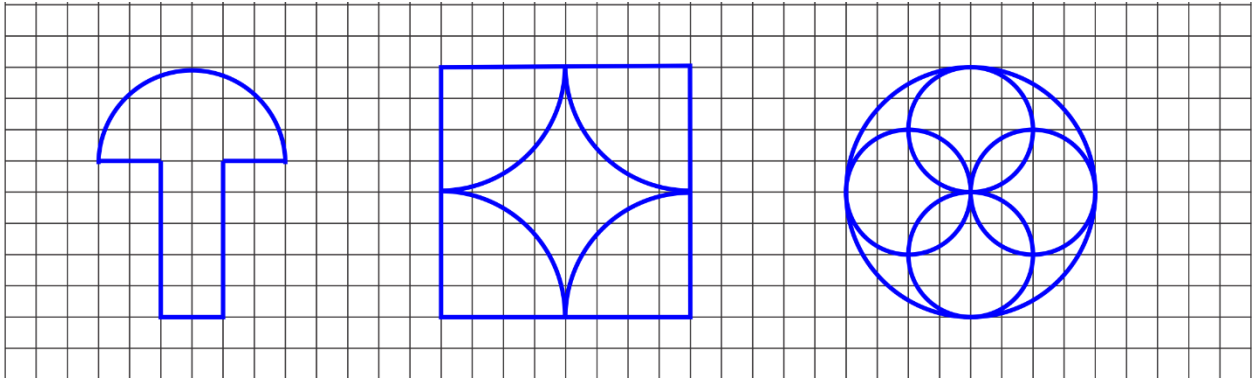
What path will the center of the circle trace? This is why the wheel is round. The center of the wheel moves parallel to the surface.

Now, imagine a "square wheel" – a square rolling on a road. Draw the path traced by point B (the vertex) during the rolling process. What will be the intersection point of the diagonals?

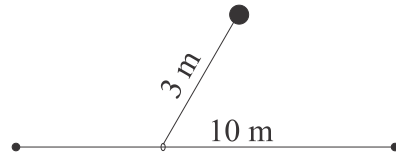
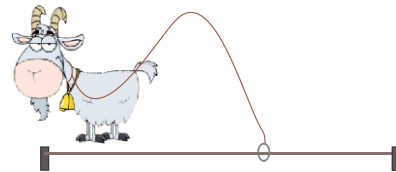
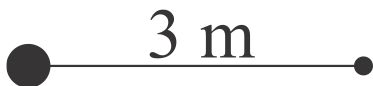
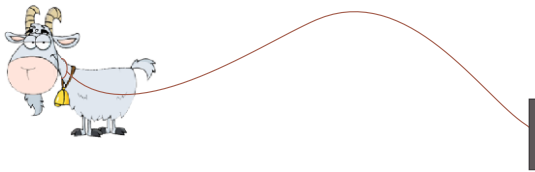


**Exercises:**

1. Copy on a graph paper:



2. Draw the picture of what shape will be left on the meadow if the goat is attached to the pole with 3 meter long rope? (Goat will eat whatever it can and a new grass will not geow). Use compass and ruler. Draw to scale 1 cm for 1 m.



3. What will be the shape if the goat is attached to the frame like on picture?

