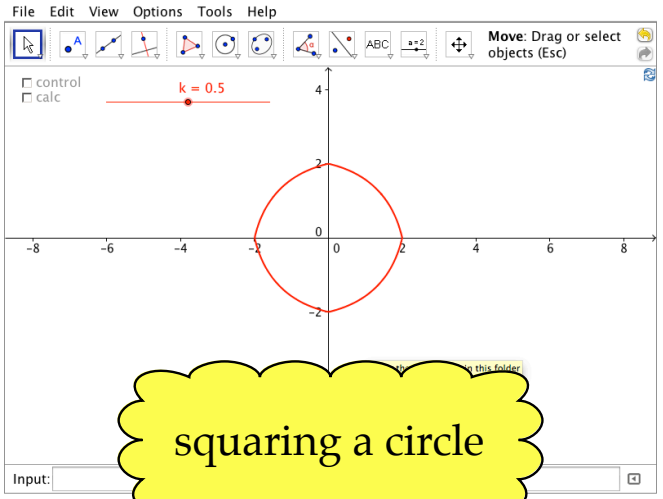
morph2

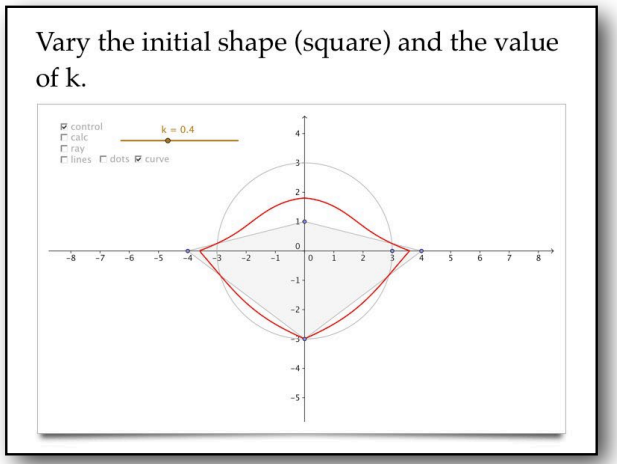
morph2

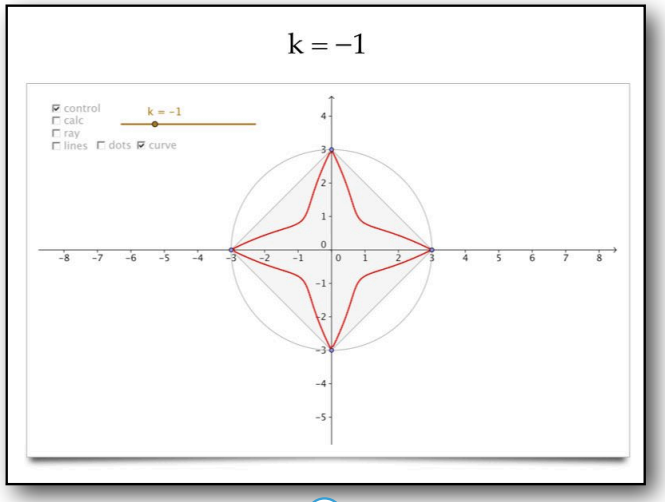
GeoGebraTube

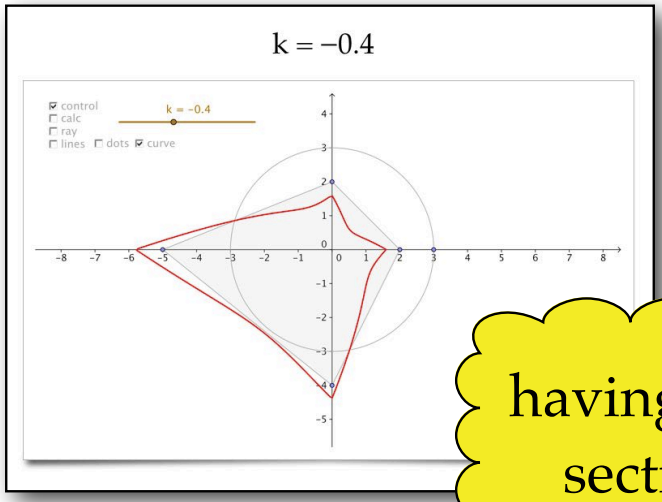
Screenr



squaring a circle







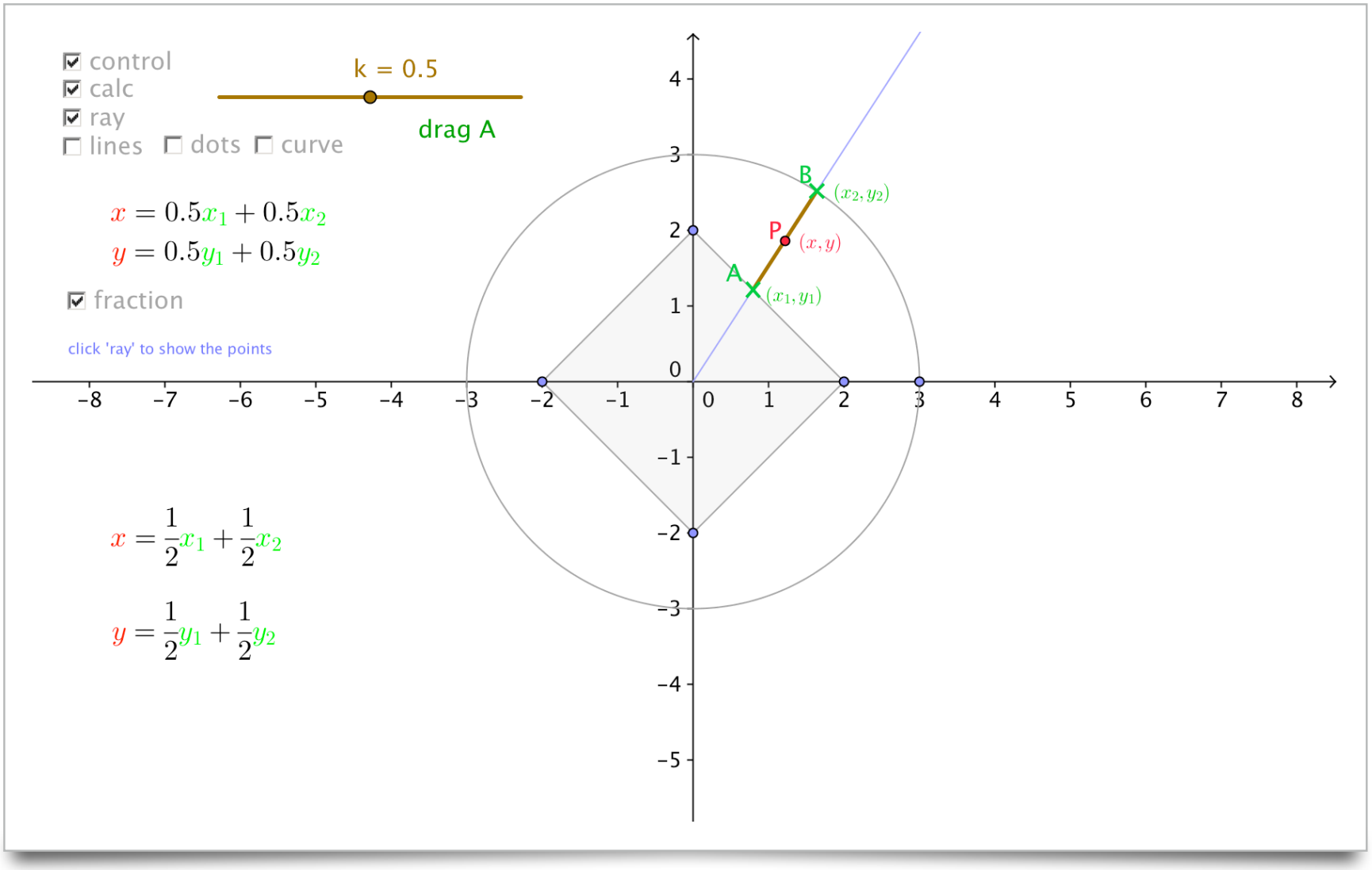
having fun with the section formula

based on project ideas with Geometer's Sketchpad

http://www.dynamicgeometry.com/Documents/GSP4-101Projects.pdf

http://www.dynamicgeometry.com/General_Resources/101_Project_Ideas.html

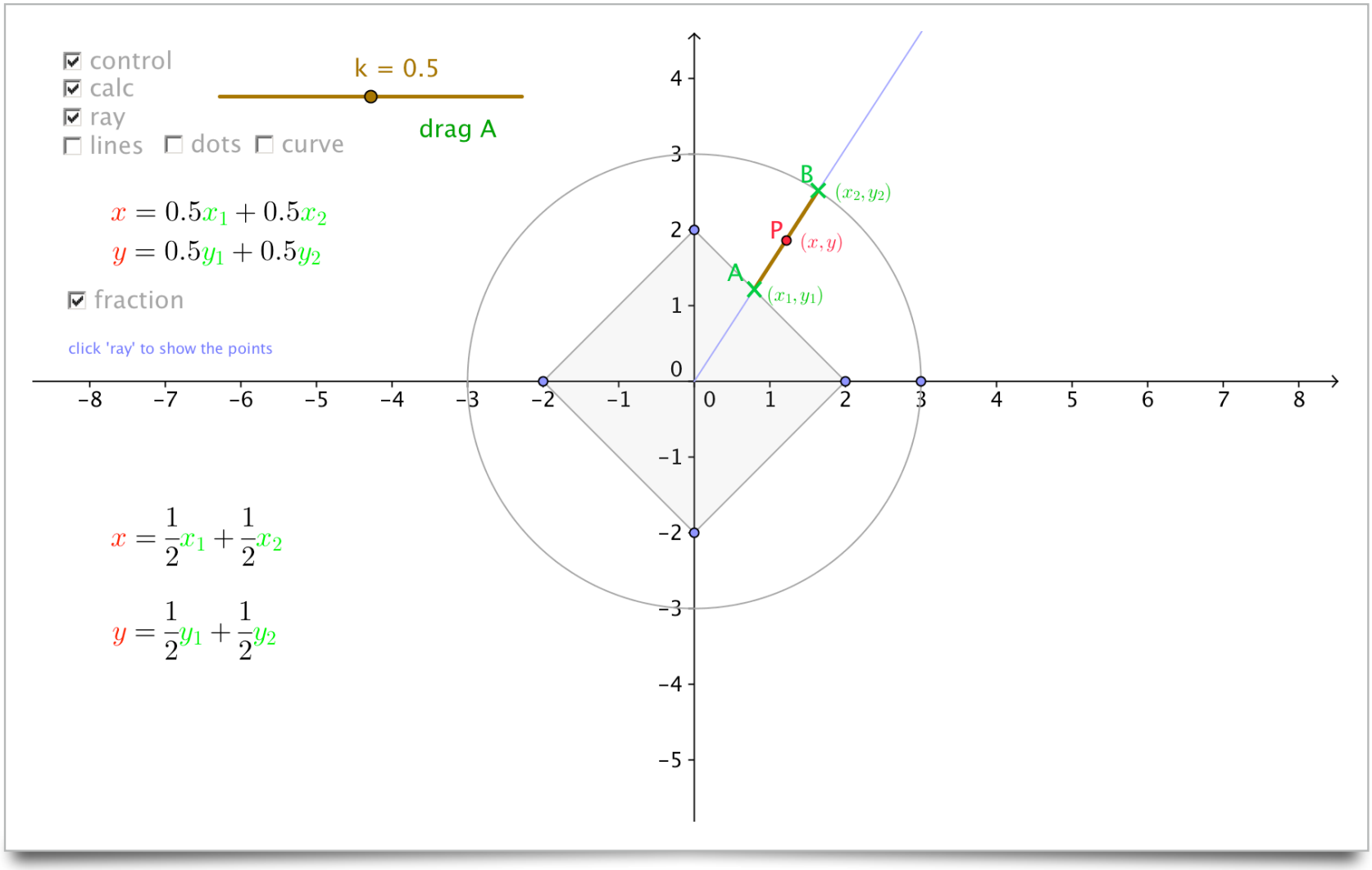
Construct a circle, a square, a ray from origin to a point A (movable on the square) cutting the circle at B.



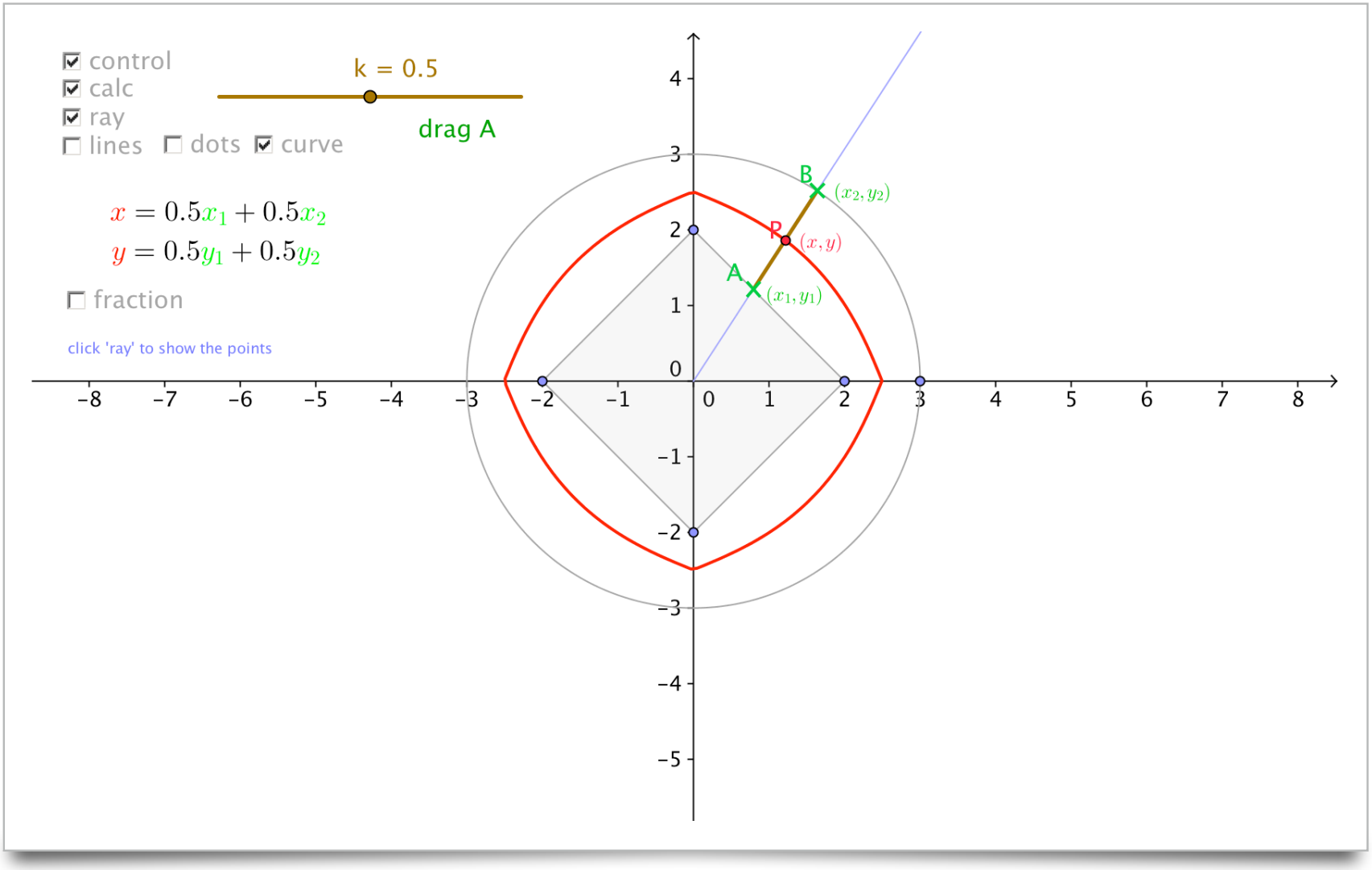
Insert a slider k. Create point P on AB with ratio AP / AB=k.

INPUT ->

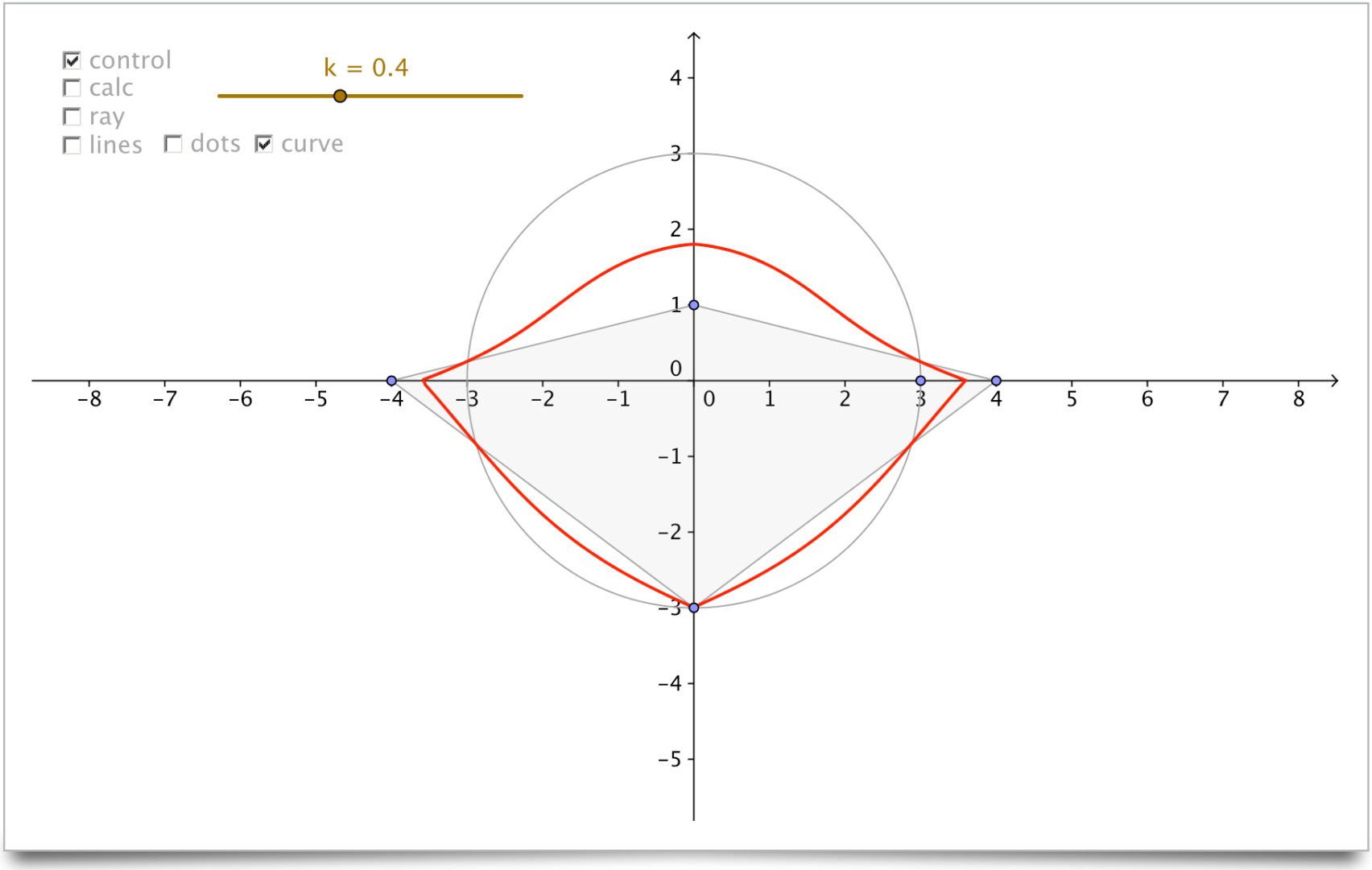
P=A+k*(B-A)



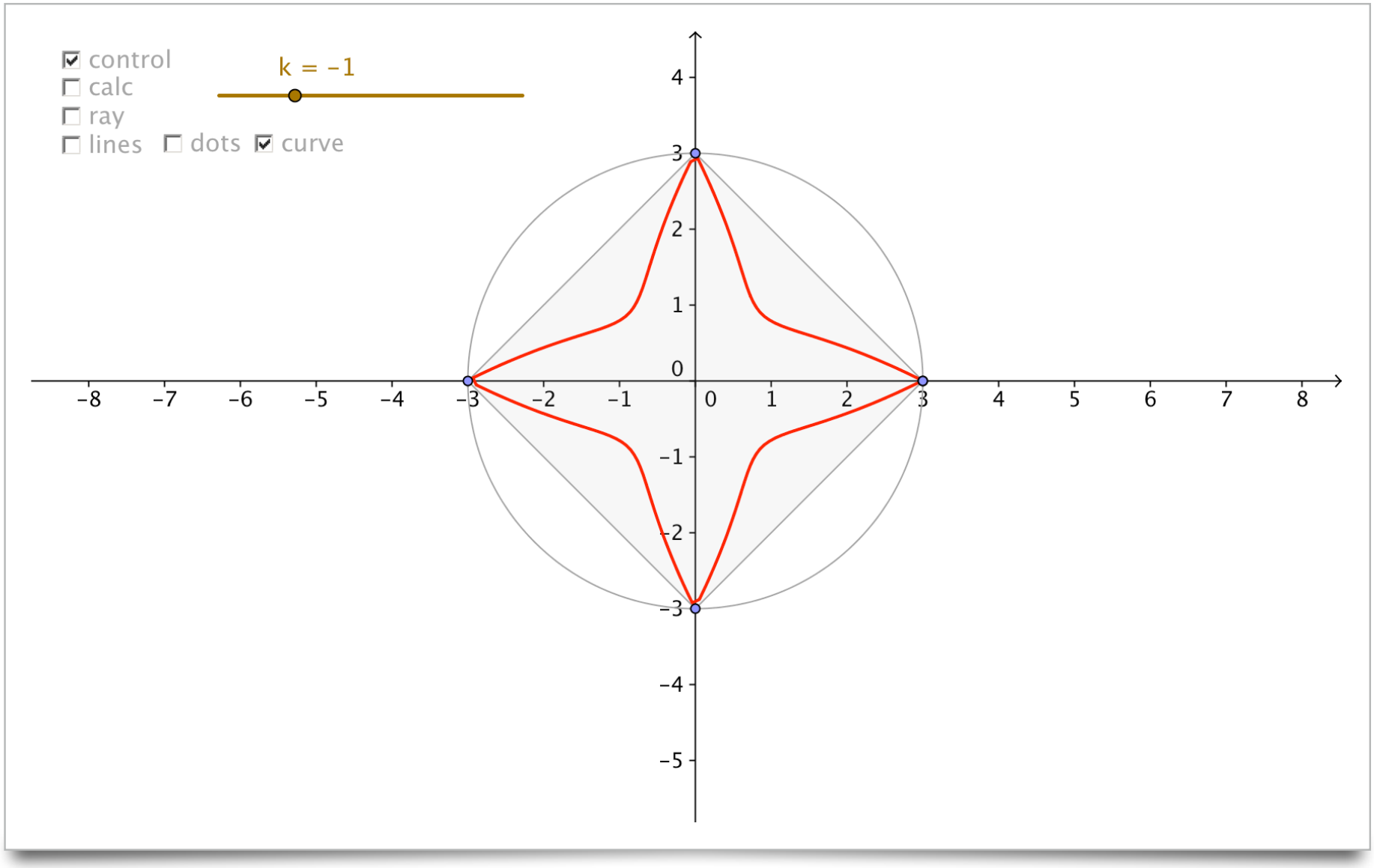
Create a locus of P (based on the movable point A on the square).



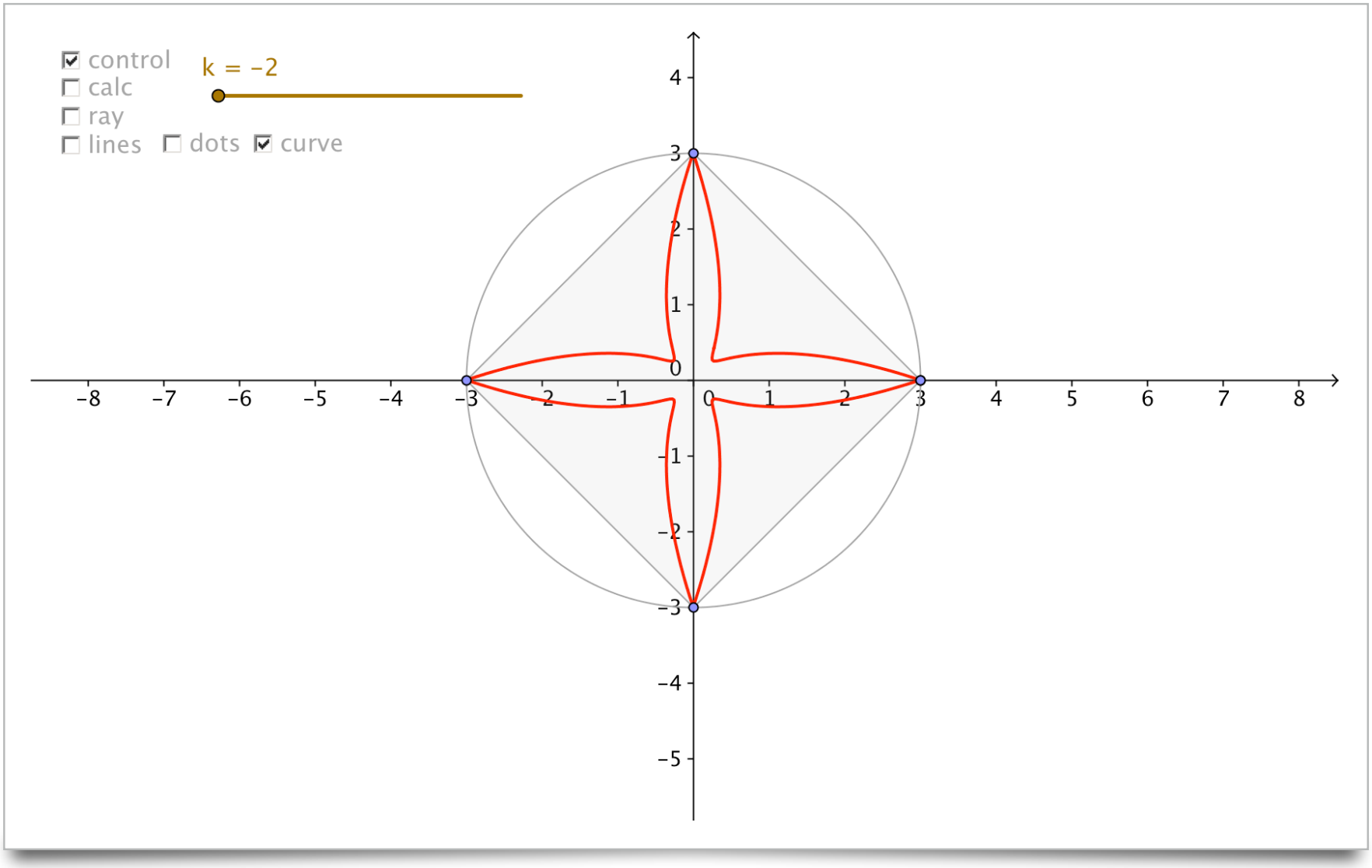
Vary the initial shape (square) and the value of k.



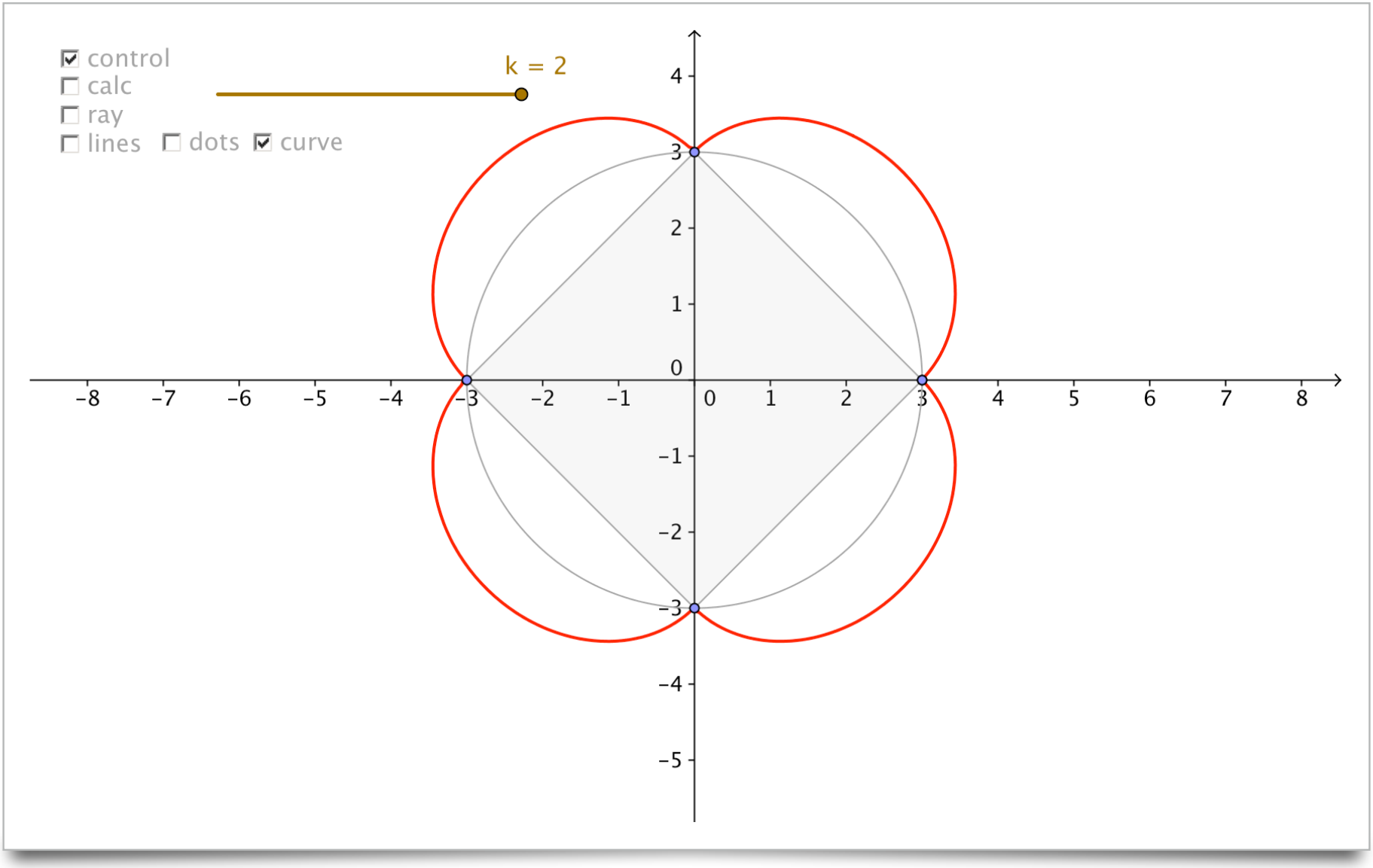
$k = -1$


control
calc
ray
lines
dots
curve
k = -1
4
3
2
1
0
-1
-2
-3
-4
-5
-8
-7
-6
-5
-4
-3
-2
-1
0
1
2
3
4
5
6
7
8

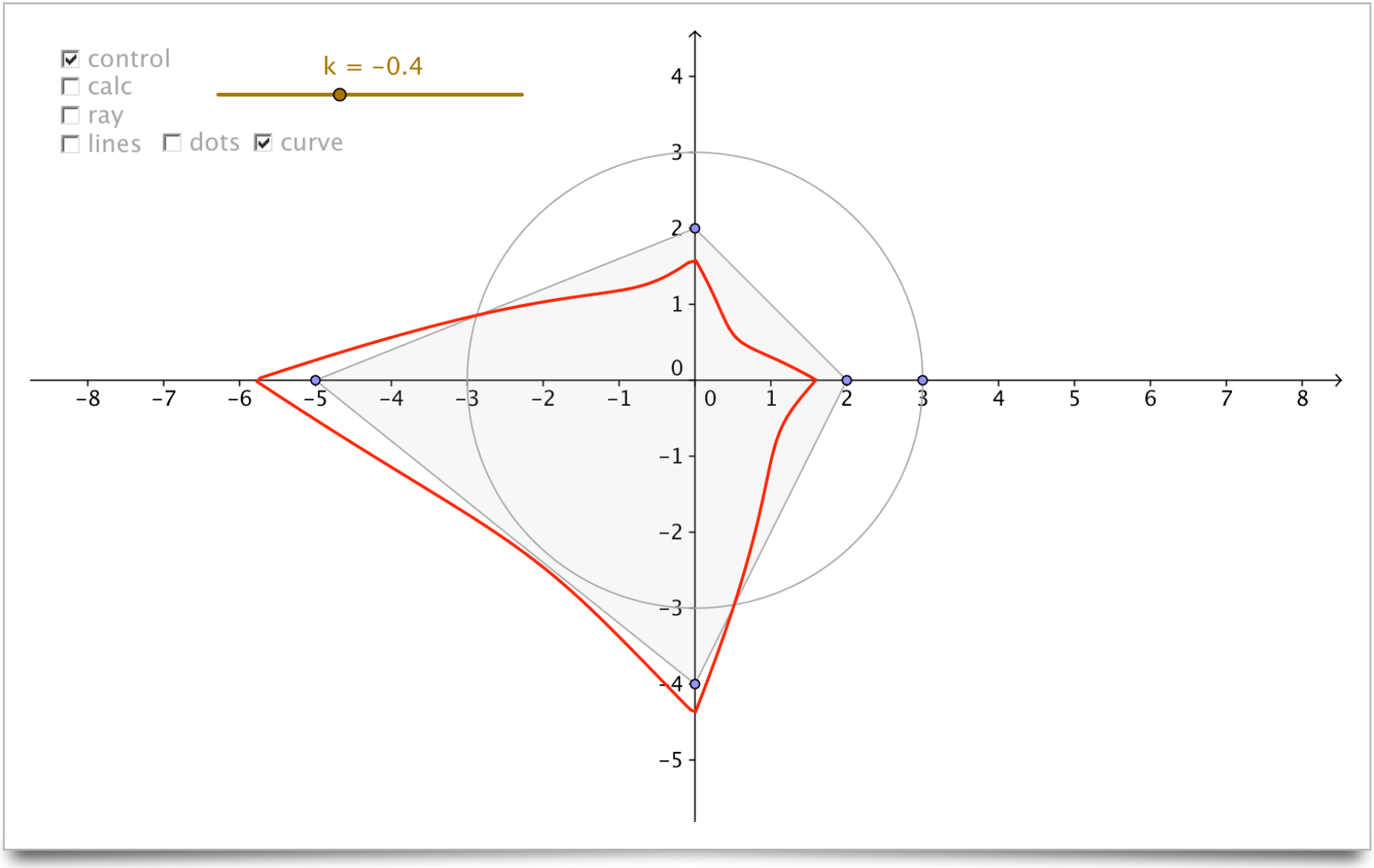
$k = -2$


control
calc
ray
lines
dots
curve
k = −2
4
3
2
1
0
−1
−2
−3
−4
−5
−8
−7
−6
−5
−4
−3
−2
−1
0
1
2
3
4
5
6
7
8

$k = 2$


control
calc
ray
lines
dots
curve
k = 2
4
3
2
1
0
−1
−2
−3
−4
−5
−8
−7
−6
−5
−4
−3
−2
−1
0
1
2
3
4
5
6
7
8

k = −0.4


control
calc
ray
lines
dots
curve
k = −0.4
4
3
2
1
0
−1
−2
−3
−4
−5
−8
−7
−6
−5
−4
−3
−2
−1
0
1
2
3
4
5
6
7
8