

Conic Sections CS1: Midpoint and Distance

What is the midpoint of the line segment between the two points:

1.  $(1, 2)$  &  $(9, 10)$

2.  $(3, 1)$  &  $(-3, 7)$

3.  $(2, 2)$  &  $(6, -4)$

4.  $(1, 6)$  &  $(2, -1)$

Find the distance between the two points:

5.  $(1, 2)$  &  $(9, 10)$

6.  $(3, 1)$  &  $(-3, 7)$

7.  $(2, 2)$  &  $(6, -4)$

8.  $(1, 6)$  &  $(2, -1)$

9. A circle has a diameter with endpoints  $(3, 9)$  and  $(1, 7)$ . What is the center and radius of the circle?