***Solution*** ***Section* R.4 – Circles**

***Exercise***

Find the distance between  and 

***Solution***









***Exercise***

Find the distance between  and 

***Solution***









***Exercise***

Find the distance between  and 

***Solution***











***Exercise***

Find the distance between  and 

***Solution***









***Exercise***

Find the distance between (−1, −5) and (−1, 2)

***Solution***









***Exercise***

Find the distance between (−4, 9) and (1, −3)

***Solution***









***Exercise***

Find the distance between (−2, 2) and (3, −6)

***Solution***









***Exercise***

Find the distance between the points  and . Give an exact answer and an approximation to three decimal places.

***Solution***

 







***Exercise***

Find the distance between the points. Give an exact answer and an approximation to three decimal places.

 and 

***Solution***

 







***Exercise***

Find the distance between the points. Give an exact answer and an approximation to three decimal places.

 and 

***Solution***



 







***Exercise***

Find the midpoint of the line segment with endpoints (1, 2) and (7, −3)

***Solution***







***Exercise***

Find the midpoint of the segment with endpoints  and 

***Solution***





***Exercise***

Find the midpoint of the segment with endpoints  and 

***Solution***





***Exercise***

Find the midpoint of the segment whose endpoints are (4, −9) and (−12, −3).

***Solution***







***Exercise***

Find the midpoint of the segment whose endpoints are (7, −2) and (9, 5).

***Solution***





***Exercise***

Find the midpoint of the line segment with endpoints  and 

***Solution***





***Exercise***

Find the midpoint of the line segment with endpoints  and 

***Solution***





***Exercise***

Find the center-radius form of the equation of center , radius 

***Solution***





***Exercise***

Write the standard form of the equation of the circle with center (0, 0) and radius 4.

***Solution***





***Exercise***

Write the standard form of the equation of the circle with center (5, −6) and radius 10.

***Solution***





***Exercise***

Write the standard form of the equation of the circle with center and .

***Solution***



***Exercise***

Write the standard form of the equation of the circle with center and .

***Solution***



***Exercise***

Find an equation of the circle having radius 5 and center (3, -7)

***Solution***





***Exercise***

Find the equation for the circle with center (−5, 2) passing through (−1, 5)

***Solution***

Radius = 









Equation of the circle:  

***Exercise***

Find the equation for the circle with a diameter whose endpoints are (4, 4) and (−2, 3)

***Solution***

Center = midpoint of the endpoints





Radius = 



  



Equation of the circle:  

***Exercise***

Find the center and the radius of 

***Solution***





***Center*** (−3, −1) and *r* = 2

***Exercise***

Find the center and the radius of 

***Solution***





***Center*** (−4, −2) and *r* = 2

***Exercise***

Find the center and the radius of 

***Solution***





***Center*** (5, 3) and *r* = 8

***Exercise***

Find the center and the radius of 

***Solution***









The equation represents a circle with ***center*** at (3, −5) and ***radius*** 3