10.2 Equations of Circles Day 2.....page #

Goal: Write an equation of a circle, graph a circle, and identify its center and radius.

Apr 11-10:25 AM

REVIEW!!!

Write the equation of each circle.

1. ⊙*J* with center *J* (2,-2) and radius 4

$(x-h)^2+(y-k)^2=r^2$

$(x-2)^2+(y+2)^2=16$

2. ⊙*Q* that passes through (2, 3) and has center *Q*(2, −1)

$D=\sqrt{(2-2)^2+(-1-3)^2}$

$D=\sqrt{16}$

$r=4$

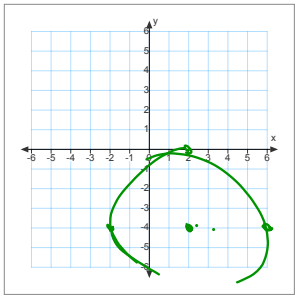
$(x-2)^2+(y+1)^2=16$

Apr 11-10:30 AM

REVIEW!!! Graph.

3. $(x-2)^2+(y+4)^2=16$

Center (2,-4) r= 4



Apr 11-10:47 AM

For each equation, identify the center and the radius.

4. $(x-5)^2+(y+3)^2=36$

C: 5, -3

r= 6

5. $x^2+(y+9)^2=27$

C: (0, -9)

r: $3\sqrt{3}$

$\sqrt{27}$

$\sqrt{9\cdot3}$

6. $(x-54)^2+y^2+10y+25=121$

$(y+5)(y+5)$

$(x-54)^2+(y+5)^2=121$

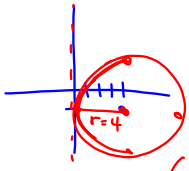
C: (54, -5)

r: 11

Apr 1-9:09 AM

Given a circle with Center at (4,-1) and tangent to the y-axis

Draw the circle.

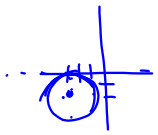


Find the equation. $(x-4)^2+(y+1)^2=16$

Apr 1-9:09 AM

Given a circle with Center at (-3,-2) and tangent to the x-axis.

Draw the circle.



Find the equation. $(x+3)^2+(y+2)^2=4$

Apr 1-9:18 AM

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check

Cell phone tower A is located at (-5,8) on a coordinate grid(laid out in miles) and has a range of 16 miles. Cell phone tower B is located at (0,7) and has a range of 10 miles. Write equations for the circles that define their service areas.

$(x+5)^2+(y-8)^2=256$

$(x)^2+(y-7)^2=100$

Apr 11-10:57 AM

Assignment: Circle Equation Worksheet /11-7 B

Apr 11-10:30 AM