Equation of Circle

1. A circle has center $(-13, \pi)$ and passes through the point $(2, \pi)$.

a) What is the radius of the circle?

b) Write the equation of the circle.

2. Two points in the plane, $A(19,4)$ and $B(19, -6)$, represent the endpoints of the diameter of a circle.

a) What is the center of the circle?

b) What is the radius of the circle?

c) Write the equation of the circle.

Equation of Circle

1. A circle has center $(-13, \pi)$ and passes through the point $(2, \pi)$.

a) What is the radius of the circle?

$$(x + 13)^2 + (y - \pi)^2 = r^2$$
$$(2 + 13)^2 + (\pi - \pi)^2 = r^2$$
$$15^2 = r^2$$
$$15 = r$$

b) Write the equation of the circle.

$$(x + 13)^2 + (y - \pi)^2 = 225$$

2. Two points in the plane, $A(19,4)$ and $B(19,-6)$, represent the endpoints of the diameter of a circle.

a) What is the center of the circle?

$(19, -1)$

b) What is the radius of the circle?

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c) Write the equation of the circle.

$$(x - 19)^2 + (y + 1)^2 = 25$$