NAME:_____

1. Find the equation of the circle with center (4, –4) and radius of 4.

   [A] $(x-4)^2 + (y+4)^2 = 16$ [B] $(x+4)^2 - (y-4)^2 = 4$

   [C] $(x+4)^2 + (y-4)^2 = 4$ [D] $(x-4)^2 + (y-4)^2 = 16$

2. Find the equation of the circle with center (5, 3) and radius of 6.

3. Write the equation of the circle $x^2 + y^2 = 4$ under the translation $\langle 3, -2 \rangle$.

4. The area of a circle is 36π and its center is at $(5, -1)$. What is its equation?

   [A] $(x-5)^2 + (y+1)^2 = 36$ [B] $x^2 + y^2 = 6$ [C] $(x+5)^2 + (y-1)^2 = 6$

   [D] $(x-5)^2 + (y+1)^2 = 6$ [E] none of the above

5. The table gives the diameters of some of the planets.

Planet	Diameter(miles)
Venus	7,519
Mercury	3,032
Saturn	74,978

   Use a center of (0, 0) for each planet. Write an equation of the cross section through the center of each planet.

[1] A

[2] $(x-5)^2+(y-3)^2=36$

[3] $(x-3)^2+(y+2)^2=4$

[4] A

[5] Venus: $x^2+y^2=14{,}133{,}840.25$; Mercury: $x^2+y^2=2{,}298{,}256$; Saturn: $x^2+y^2=1{,}405{,}425{,}121$