Name: $\qquad$

1. In a circle, the coordinates of the endpoints of a diameter are $(4,5)$ and $(10,1)$. What are the coordinates of the center of the circle?
2. Segment $A B$ is the diameter of a circle whose center is the point $(2,5)$. If the coordinates of $A$ are $(1,3)$, find the coordinates of $B$.
3. If the endpoints of the diameter of a circle are $(3,1)$ and $(6,5)$, find the length of the diameter.
4. Find the area of the triangle whose vertices have coordinates $(8,0),(0,10)$, and $(0,0)$.
5. In the accompanying diagram, isosceles triangle $A B C$ has coordinates $A(-4,0), B(4,0)$, and $C(0,4)$. Find the area of $\triangle A B C$.


Date: $\qquad$
6. In the accompanying diagram $A B C D$ is a parallelogram with vertices $A(2,0), B(7,0)$, $C(10,3)$, and $D(5,3)$. What is the area of parallelogram $A B C D$ ?

7. What is the area of rectangle $A B C D$ whose vertices are $A(3,2), B(3,-2), C(-3,2)$, and $D(-3,2)$ ?
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| 1. <br> Answer: | $(7,3)$ |
| :--- | :--- |
| 2. |  |
| Answer: | $(3,7)$ |
| 3. |  |
| Answer: | 5 |
| 4. |  |
| Answer: | 40 |
| 5. <br> Answer: | 16 |
| 6. |  |
| Answer: | 15 |
| 7. |  |
| Answer: | 24 |

