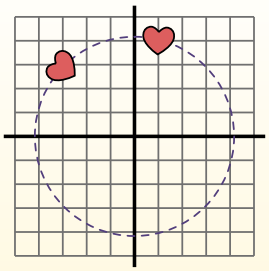
Поверните каждую фигуру. Определите новые координаты.

θ = Ângulo de rotação

Fórmula de rotación
$x1 = x\times\cos(\theta) - y\times\sin(\theta)$
$y1 = x\times\sin(\theta) + y\times\cos(\theta)$

En el ejemplo de la derecha, la forma está en las coordenadas (1,4).
Vamos encontrar as coordenadas se girarmos a forma em 60°.



1. $x1 = 1\times\cos(60) - 4\times\sin(60)$
$y1 = 1\times\sin(60) + 4\times\cos(60)$

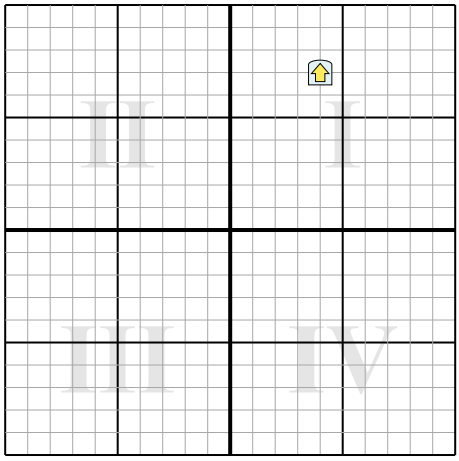
2. $x1 = 1\times0.5 - 4\times0.87$
$y1 = 1\times0.87 + 4\times0.5$

3. $x1 = 0.5 - 3.48$
$y1 = 0.87 + 2$

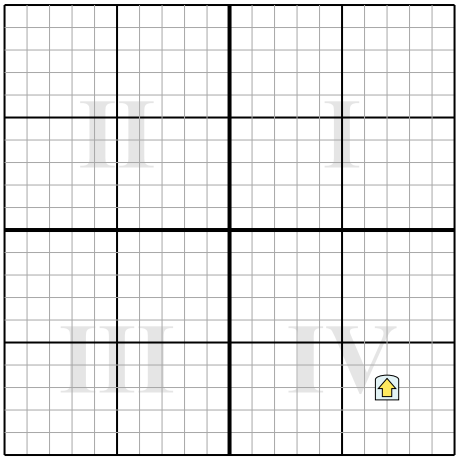
4. $x1 = -2.98$
$y1 = 2.87$

5. Al observar la forma, podemos ver que girado 60 ° está en (-2.98, 2.87).

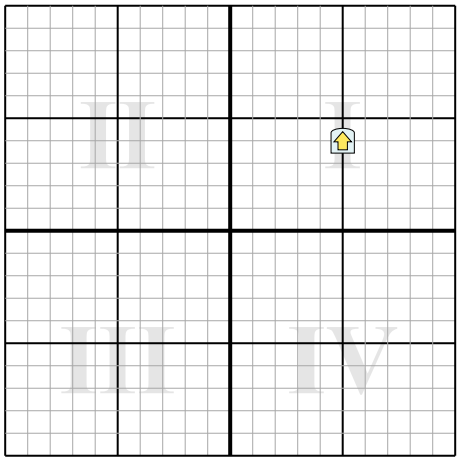
1) Поверните фигуру 99° вокруг точки (0;0).



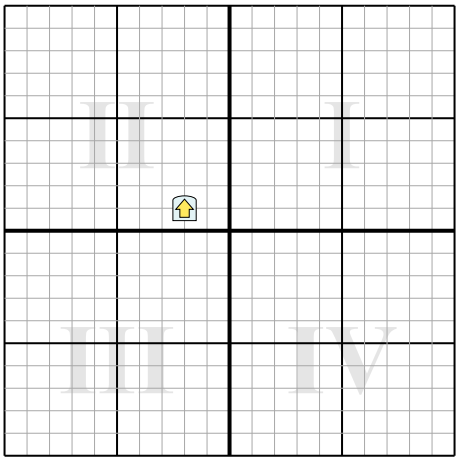
2) Поверните фигуру -40° вокруг точки (0;0).



3) Поверните фигуру -292° вокруг точки (0;0).



4) Поверните фигуру 45° вокруг точки (0;0).



Ответы

1. _____
2. _____
3. _____
4. _____

1-4	75	50	25	0

Поверните каждую фигуру. Определите новые координаты.

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Fórmula de rotación
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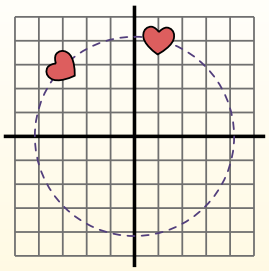

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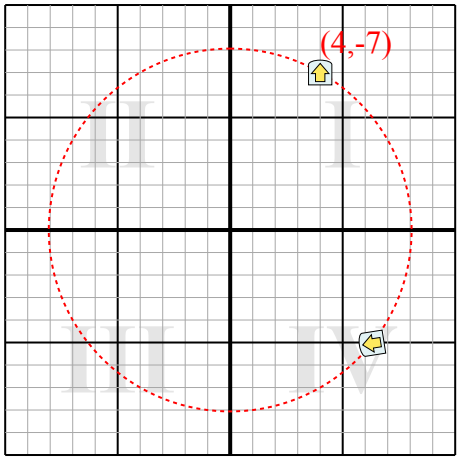
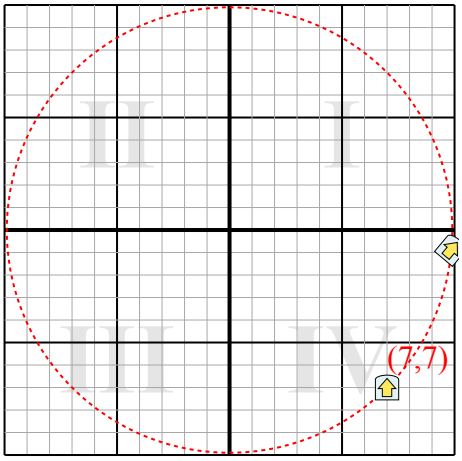


2) Поверните фигуру -40° вокруг точки (0;0).



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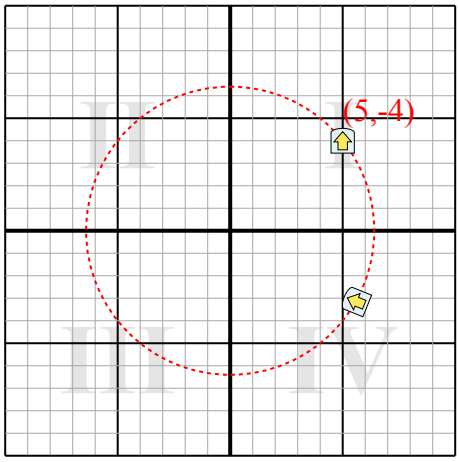

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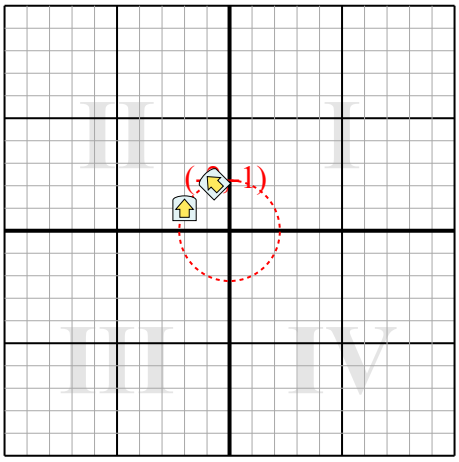

Ответы

1. (6,3,-5)
2. (9,9,-0,9)
3. (5,6,-3,1)
4. (-0,7,2,1)

1-4	75	50	25	0