**Mathematics II Midterm Exam. (B)**

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| مجموعة ( ) | سكشن ( ) | رقم الجلوس ( ) | اسم الطالب: |

**Complete the following**

1. The second degree equation represents a pair of two lines

 $x+y-4=0,and x-y-2=0$ is ………………………………………………………………………….

When the axis transfer to the point (3,1) the equation becomes ………………………...........……

1. The equation of the line which has intercept **-**2 on x-axis and intercept **-**5 on y-axis is …………………………………………….
2. When the axis rotates by an angle 45° the equation $\sqrt{2} xy=4$ becomes ………………………….
3. The equation of the circle which touch the coordinate axis at (4,0)and (0,4) is …………………………………………………………………………………………………………………………………..….…
4. The angle between the lines $2x^{2}-3xy-2y^{2}=0$ is…………………………………………………………
5. The separation equations for the lines $3x^{2}+8xy-3y^{2}=0$ are ……………………………………………………………………………………………………………………..………….……
6. The equation of bisectors for the angle between the lines $2x^{2}-3xy-2y^{2}=0$ is …………………………….………………………………………………………………………………………………………………
7. The equation $r^{2}=a^{2} cosθ sinθ$ transform to Cartesian coordinates becomes

……………………………………………………………………………………………………………………………….…………...

استخدم خلف الورقة لحل السؤالين التاليين

1. Find the value of λ such that the equation $3x^{2}+8xy-3y^{2}+3x-y+λ=0$ represent a pair of lines then fined the equation of the bisectors of the angle between them.
2. Find the value C such that the circle $x^{2}+y^{2}-8x-8y+C=0$ has a radius $4√2$ units and find the equation of the tangent at $(0, 0)$.