**Mathematics II Midterm Exam (A)**

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

**Complete the following**

1. The locus of a point which is at a distance 3 from the point (3,-1) is

………………………………………………………………………………………………………………………………………

when the axis transferred to the point (3, -1) the equation becomes

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

1. The equation of the line which has intercept 3 on x-axis and intercept 4 on y-axis is ……………………………………………………………………………………………………………………………..….
2. When the axis rotate by an angle 45° the equation $x^{2}-y^{2}=5√2$ becomes …………………….
3. The equation of the circle which passes through the origin and cuts off intercepts equal to 4 and 5 from the x-axis and y-axis respectively is……………………………………………………….………..
4. The angle between the lines $3x^{2}+8xy-3y^{2}=0$ is…………………………………………………………
5. The equation of the bisectors for the angle between the lines

 $3x^{2}+8xy-3y^{2}=0 is $……………………………………………………………………………………………

1. The separation equation of the lines $2x^{2}-3xy-2y^{2}=0$ are ……………………….………….……
2. The equation $(x^{2}+y^{2})^{2}=2a^{2}xy$ transfer to coordinates becomes …………………………………

استخدم خلف الورقة لحل السؤالين التاليين

1. Find the value of λ such that the equation $2x^{2}-3xy-2y^{2}-8x+6y+λ=0$ 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 $4$ units the find equation of the tangent at $(4, 0)$.