

Doon Public School

A Senior Secondary School
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Assignment 5

Subject: Mathematics

Class: XI

Date: 9-10-2018

1. Find the equations of the lines, which cut-off intercepts on the axes whose sum and product are 1 and -6, respectively.
2. Find the area of the triangle formed by $y-x=0$, $x+y=0$ and $x-k=0$.
3. What are the points on the y-axis whose distance from the line $\frac{x}{3} + \frac{y}{4} = 1$ is 4 units.
4. Find the perpendicular distance from the origin of the line joining the points $(\cos \theta, \sin \theta)$ and $(\cos \phi, \sin \phi)$.
5. Find the equation of the lines through the point (3,2) which make an angle of 45° with the line $x-2y=3$.
6. Find the value of p so that the three lines $3x+y-2=0$, $px+2y-3=0$ and $2x-y-3=0$ may intersect at one point.
7. Find the image of the point (3,8) with respect to the line $x+3y=7$ assuming the line to be a plane mirror.
8. In what ratio, the line joining (-1,1) and (5,7) is divided by the line $x+y=4$?