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National Institute of Open Schooling (NIOS)
Senior Secondary Course
Lesson – 14: Straight Lines
Worksheet -14

1. Reduce the following equation into slope-intercept form and find their slopes and the y-intercepts.

(i) $2x+3y=7$
(ii) $6x-9y-7=0$

2. Find out equation of Straight line parallel to the line $2x+4y+5=0$ and passing through the point $(-2,5)$

3. Let L_1 and L_2 be the two parallel lines, whose equations are as:

$2x+8y-32=0$ and $6x+7y+16=0$. Find the distance between two lines L_1 and L_2.

4. The line through the point $(P,3)$ and $(4,1)$ intersects the line $7x-9y-19=0$ at right angle. Then find the value of P.

5. Find the equation of the right bisector of the line segment joining the points $(4,5)$ and $(-2,3)$.

6. Two lines are passing through the point (2, 3) and intersect each other at an angle 60^o. If the slope of one line is 2. Find the equation of the other line.

7. List out the equations of straight line in various standard forms with an example.

8. If $ax-2y=1$ and $6x-4y+b=0$ represent the same line, find the value of a and b.

9. If the lines $ax+2y+1=0$, $bx+3y+1=0$ and $cx+4y+1=0$ are concurrent, show that a, b, c are in A.P

10. Show that line through the points (8, 7) and (6, 9) cuts off equal intercepts on co-ordinate axes.