Equation of the Line

In problems 1-3, find the equation of the line that contains the given point and has the given slope.

1. $(5,1);\text{slope}=2$	2. $(-3,-2);\text{slope}=5$
3. $(4,-3);\text{slope}=\frac{-1}{8}$	

In problems 4-7, find the equation of the line that contains the given points.

4. $(3,1),(4,2)$	5. $(-1,-4),(-2,-8)$
6. $(-8,-5),(-3,-2)$	7. $(-6,0),(-2,-7)$

In problems 8-10, find the equation of the line that contains the given point and is parallel to the given line.

8. $(-1,4);\ y=2x+3$	9. $(3,1);\ 5x-y=4$
10. $(-6,-2);\ 4x+2y=7$	

In problems 11-13, find the equation of the line that contains the given point and is perpendicular to the given line.

11. $(-5,-1);\ y=7x-2$	12. $(4,0);\ 6x+2y=3$
13. $(-1,8);\ 8x-3y=2$	

In problems 14-16, graph the given line

14. $y=\frac{1}{3}x-2$	15. $y=-5x+4$
16. $8x+4y=4$	