1. $m=\frac{1}{4}$ and $(1, 1)$

$y=\frac{1}{4}x+b$

$1=\frac{1}{4}(1)+b$

$1=\frac{1}{4}+b$

$\frac{3}{4}=b$

$y=\frac{1}{4}x+\frac{3}{4}$

6. C(3, 22) & D(-1, -6)

$\frac{22--6}{3--1}=7$

$y=7x+b$

$22=7(3)+b$

$22=21+b$

$1=b$

$y=7x+1$

13. Passes through (-7, -4), perpendicular to $y=\frac{1}{2}x+9$

$y=-2x+b$

$-4=-2(-7)+b$

$-4=14+b$

$-18=b$

$y=-2x-18$