Worked out answers to problems in the PowerPoint Presentation:

Do Now

1. $(-9,3)$ *and* $(0,0)$

$$m=\frac{0-3}{0-(-9)}=\frac{-3}{0+9}=\frac{-3}{9}=-\frac{1}{3}$$

$$3=-\frac{1}{3}(-9)+b$$

$$3=3+b$$

$$-3 \quad -3$$

$$0=b$$

$$y=-\frac{1}{3}x+0$$

$$y=-\frac{1}{3}x$$

2. *Through* $(-4,10)$ *parallel to* $y=2x-4$

$$\| \; m=2$$

$$10=2(-4)+b$$

$$10=-8+b$$

$$+8 \quad +8$$

$$18=b$$

$$y=2x+18$$

Examples:

1. $$\| \; m=\frac{7}{5}$$

$$2=\frac{7}{5}(5)+b$$

$$2=\frac{35}{5}+b$$

$$2=7+b$$

$$-7 \quad -7$$

$$-5=b$$

$$y=\frac{7}{5}x-5$$

2. $$\| \; m=\frac{9}{2}$$

$$4=\frac{9}{2}(3)+b$$

$$4=\frac{27}{2}+b$$

$$-\frac{27}{2} \quad -\frac{27}{2}$$

$$\frac{8}{2}-\frac{27}{2}=b$$

$$-\frac{19}{2}=b$$

$$y=\frac{9}{2}x-\frac{19}{2}$$

3. $$\| \; m=-\frac{3}{4}$$

$$-1=-\frac{3}{4}(1)+b$$

$$-1=-\frac{3}{4}+b$$

$$+\frac{3}{4} \quad +\frac{3}{4}$$

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

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

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

4. $$\| \; m=-\frac{5}{3}$$

$$3=-\frac{5}{3}(2)+b$$

$$3=-\frac{10}{3}+b$$

$$+\frac{10}{3} \quad +\frac{10}{3}$$

$$\frac{9}{3}+\frac{10}{3}=b$$

$$\frac{19}{3}=b$$

$$y=-\frac{5}{3}x+\frac{19}{3}$$