III. Anomalous Lines, Part 2 (p.224):

1.(*i*) Horizontal Line...

***y*-intercept: (0,b)**

***x*-intercept: none**

equation form, $y = b$

slope: m = 0

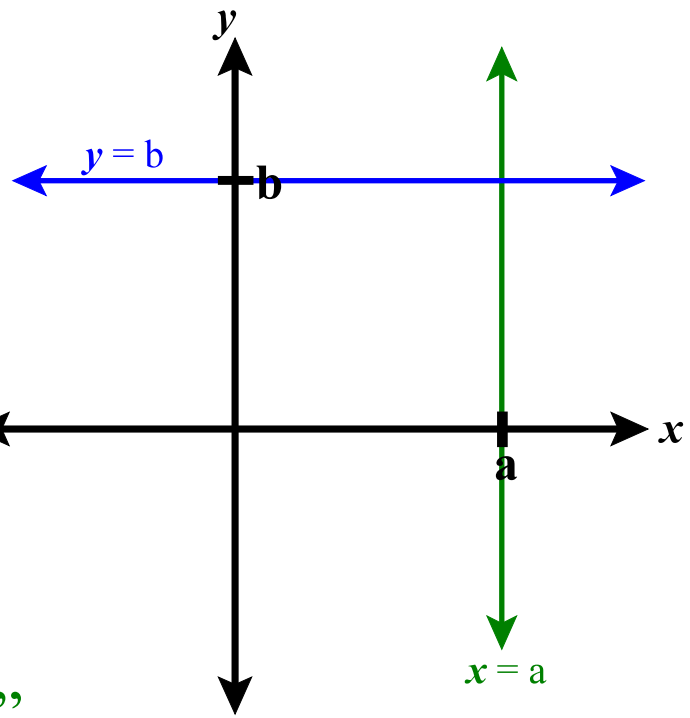
(*ii*) Vertical Line...

***y*-intercept: none**

***x*-intercept: (a,0)**

equation form, $x = a$

slope: m is "undefined"



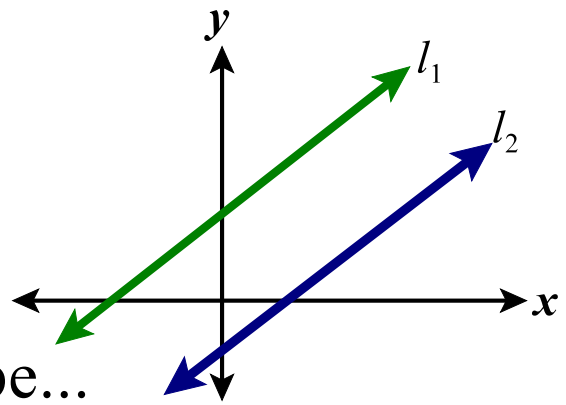
2. Example (p.228): #44

IV. Parallel Lines (p.225):

for any two distinct lines, l_1 & l_2

$$l_1 \parallel l_2 \iff m_1 = m_2$$

symbol meaning "**is parallel to**"



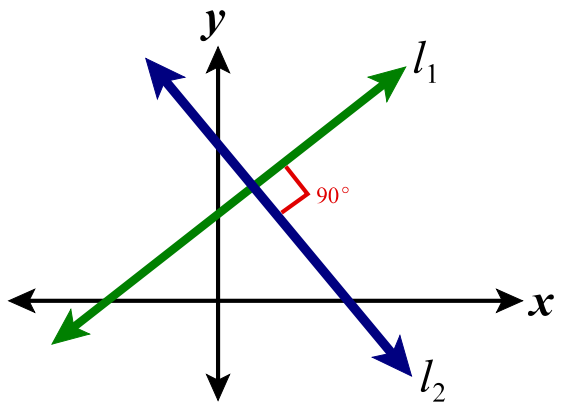
i.e., parallel lines have the same slope...

V. Perpendicular Lines (p.225):

for any two non-vertical lines, l_1 & l_2

$$l_1 \perp l_2 \iff m_1 = -1/m_2$$

symbol meaning "**is perpendicular to**"



i.e., perpendicular lines have slopes that are "negative reciprocals" ($m_1 \cdot m_2 = -1$)...

VI. Examples (p.228): #50,**58**

HW: pp.227-228 / #3-43(every other odd),45-59(odd)

Read pp.233-238 (section 3.5)

I. Equation Forms for Lines, Part I:

1. $Ax + By = C$ Standard form
2. $y = mx + b$ Slope-intercept form

where... m = slope & (0,b) is the *y*-intercept

II. Examples (pp.239-240): Problems #6,12,14,16,**30**

HW: pp.239-240 / Exercises #1-37(every other odd)
Read pp.243-246 (section 3.6)