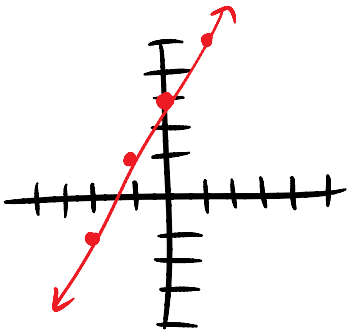
Sec 13.1
pgs. 607 - 609
#4, 5 - 11 odd,
15, 19, 21

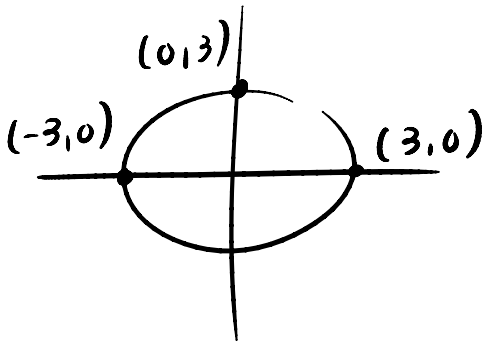
Sec 13.2
pg. 616#8

**#4** Graph: $y-1=2(x+1)$

$m=2$
pt: $(-1,1)$



**#5** Verify that the 3 points shown lie on the circle whose equation is $x^2+y^2=9$




$(-3,0)$: $(-3)^2+(0)^2=9$
$9=9$ ✓

$(0,3)$: $(0)^2+(3)^2=9$
$9=9$ ✓

$(3,0)$: $(3)^2+0^2=9$
$9=9$ ✓

**#7** Find the x and y intercepts of the graph $y=2x-6$

y int: $-6$
$(0,-6)$

x int. $0=2x-6$
$6=2x$
$3=x$
$(3,0)$

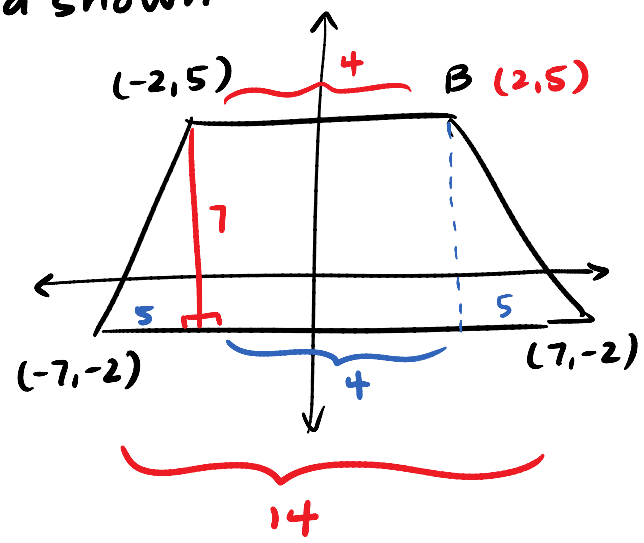
**#9** Is $(-4,6)$ on the V-shaped graph of $y=|x-2|$

$6=|-4-2|$
$6=|-6|$
$6=6$ ✓ yes

**#11** Is $(6,8)$ on the graph of $x^2+y^2=100$

$(6)^2+(8)^2=100$
$36+64=100$
$100=100$ yes

#15 Consider the isosceles trapezoid shown




a. Find the coordinates of vertex B. $(2,5)$

b. Find the length of the bases $4, 14$

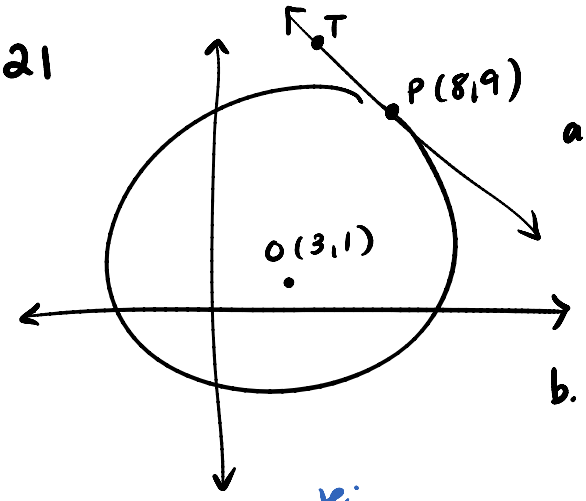
c Find the length of the median $9$

d. Find the trapezoids area. $A = m \cdot h$
$A = 9 \cdot 7$
$A = 63$

#19 If a line containing point $(x_1, y_1)$ and having slope m can represent the equation $y - y_1 = m(x - x_1)$, find an equation that corresponds to the line containing point $(5,2)$ and having a slope of 6.

$y - 2 = 6(x - 5)$

#21




a. Find slope $\overleftrightarrow{PT}$ $m = \frac{9-1}{8-3} = \frac{8}{5}$

$m_{pt} = \frac{-5}{8}$

b. $\overleftrightarrow{PT}$ $y - 9 = \frac{-5}{8}(x - 8)$

$9 - 9 = -\frac{5}{8}(8 - 8)$

$0 = 0$ ✓

Note: Use 2 pts

c. $y = -\frac{5}{8}x + 14$

$9 = -\frac{5}{8}(8) + 14$

$9 = 9$ ✓

#8

a. $y-1=3(x-2)$

b. $y-3=-\frac{1}{2}(x+6)$

c $y=5$

d. $y=7(x-2)$

e $y=-4(x-3)$

f. $x=-3$

g. $y-7=\frac{3}{2}(x-8)$

b. $(8,7)$
$x_1, y_1$

$y-7=\frac{3}{2}(x-8)$

$\frac{3y}{3}=-\frac{2x}{3}+\frac{24}{3}$

$y=-\frac{2}{3}x+8$

$m=-2/3$

$\perp m=3/2$