Algebra 2 Weds. 2-13-13 CLASS NOTES

(12.) $C(3,2)$, $r=7$ $\boxed{(x-3)^2+(y-2)^2=49}$

(13) $C(5,1)$, $r=10$ $\boxed{(x-5)^2+(y-1)^2=100}$

(14) $C(0,-2)$ $r=7$ $\boxed{x^2+(y+2)^2=49}$

(15) $C(-4,2)$, $r=8$ $\boxed{(x+4)^2+(y-2)^2=64}$

(16) $C(12,-3)$ (h, k), point $(-12,7)$

$$(7+3)^2+(-12-12)^2=r^2$$

$$100+576=r^2$$

$$676=r^2$$

$$\boxed{(x-12)^2+(y+3)^2=676}$$

Homework Review

(17) C(−6, −4), CONTAINING (−2, −1)

E

θ

$$(-1+4)^2 + (-2+6)^2 = r^2$$

$$9 + 16 = r^2$$

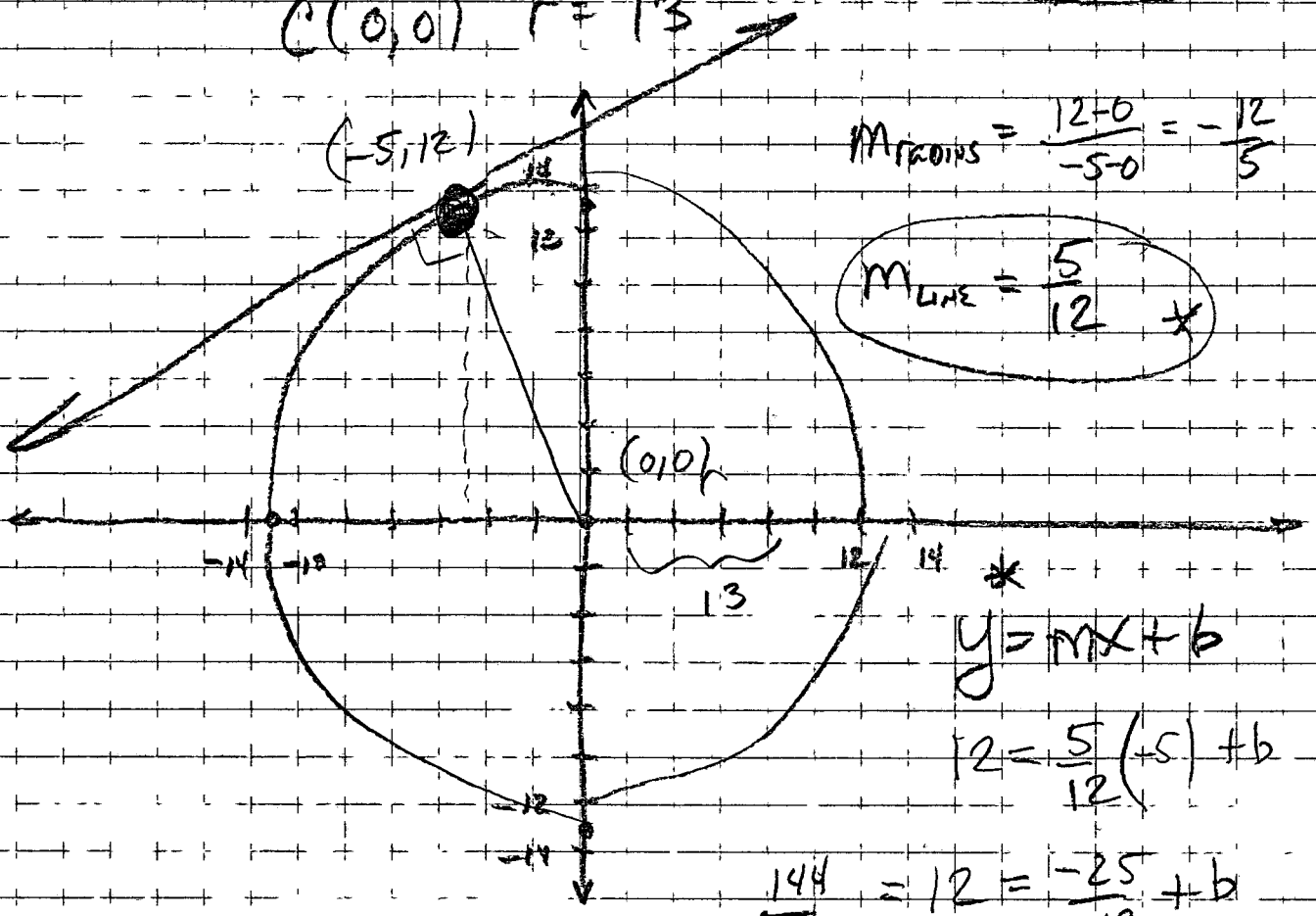
$$25 = r^2$$

$$(x+6)^2 + (y+4)^2 = 25$$

(20) $x^2 + y^2 = 169$

$C(0,0)$ $r = 13$

POT $(-5, 12)$ *
x, y



$m_{RADIUS} = \frac{12-0}{-5-0} = -\frac{12}{5}$

$m_{LINE} = \frac{5}{12}$ *

*

$y = mx + b$

$12 = \frac{5}{12}(-5) + b$

$\frac{144}{12} = 12 = \frac{-25}{12} + b$

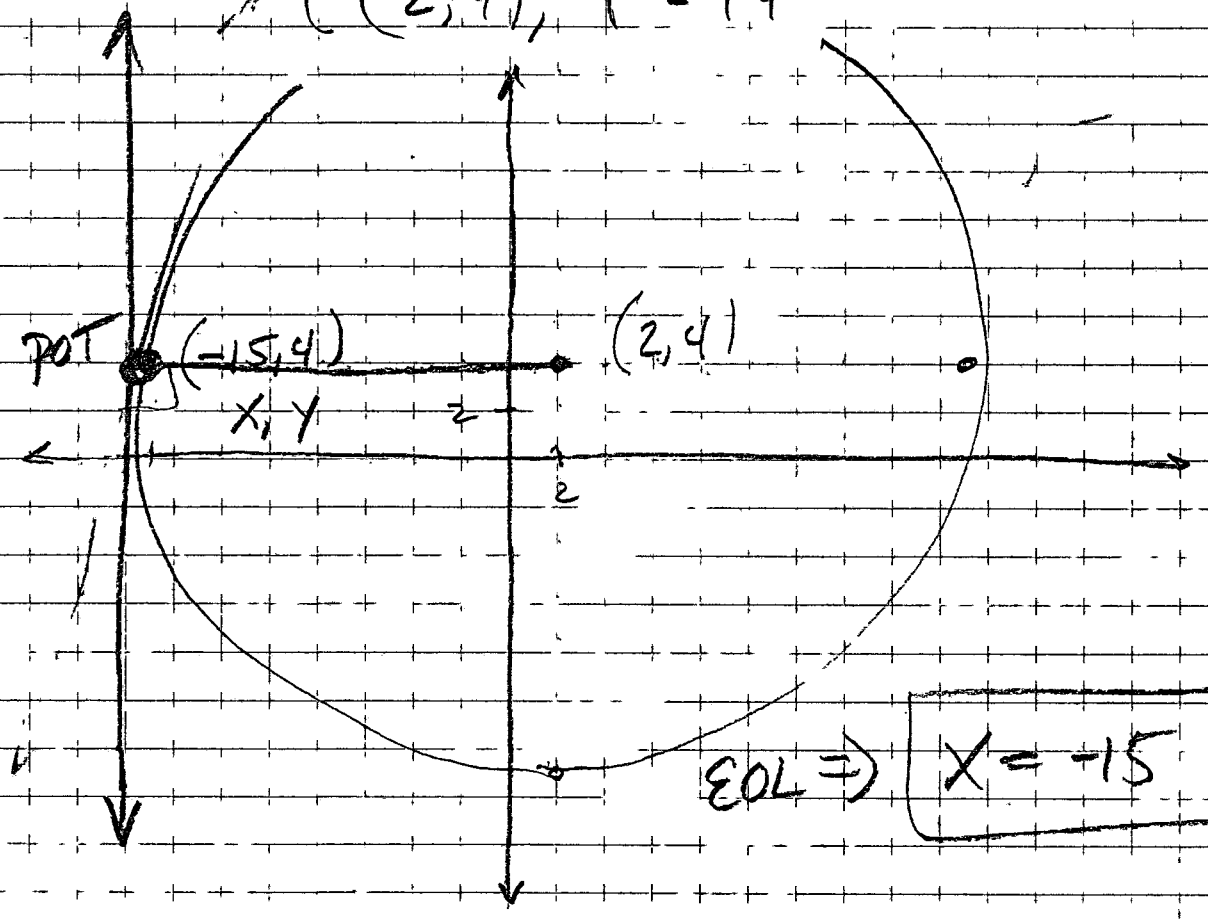
$+\frac{25}{12}$ $+\frac{25}{12}$

$\frac{169}{12} = b$

$y = \frac{5}{12}x + \frac{169}{12}$

(21) $(x-2)^2 + (y-4)^2 = 289$ POT $(-15, 4)$

$C((2,4), r = 17$



EOL $\Rightarrow$ $\boxed{x = -15}$

WS Practice

(17) $(-9, 1)$, $(-2, 1)$ Ends of a diameter

EOC?

Mid = C $\left(\frac{-11}{2}, 1\right)$ radius = ?

h, k

$(1+1)^2 + (-2+9)^2 = dia^2$

rise runs

$49 = dia^2$

$7 = dia$

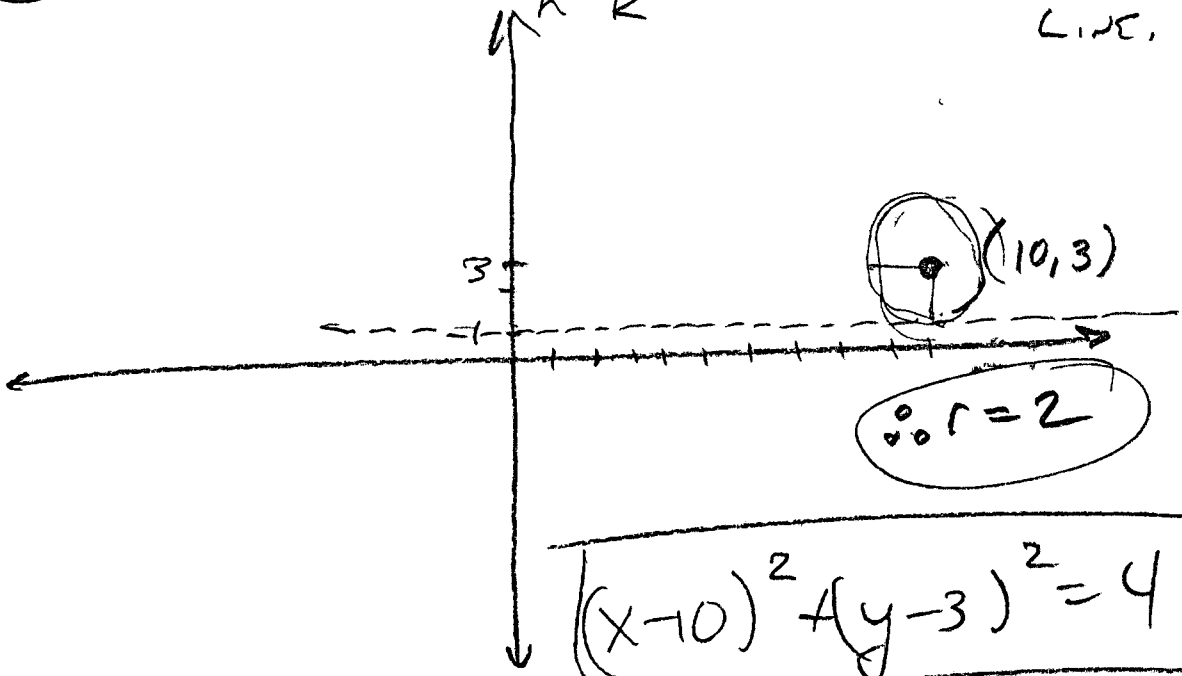
$\frac{7}{2} = radius$

$\left(x + \frac{11}{2}\right)^2 + (y-1)^2 = \frac{49}{4}$

(28) EOC $\Rightarrow$ C(10, 3) tangent to $y=1$

h k

HORIZ. LINE.



$\therefore r = 2$

$$(x-10)^2 + (y-3)^2 = 4$$

Worksheet Practice