157) Center: $(3, -14)$
Radius: 4

159) Center: $(-16, -1)$
Radius: 1

161) Center: $(10, -15)$
Radius: 2

163) Center: $(-1, 1)$
Radius: 7

157 $(x-3)^2+(y+14)^2=4^2$

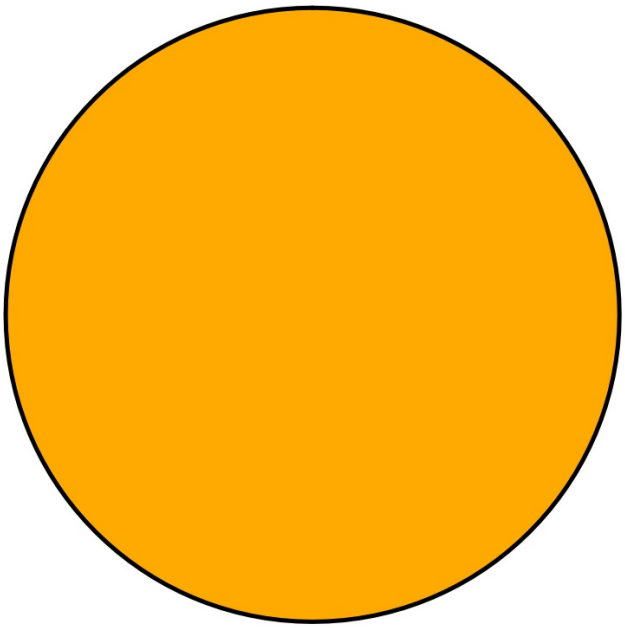
$(x-3)^2+(y+14)^2=16$

161 $(x-10)^2+(y+15)^2=2^2$

$(x-10)^2+(y+15)^2=4$

- Videos/Notes/WSQ
- Q's

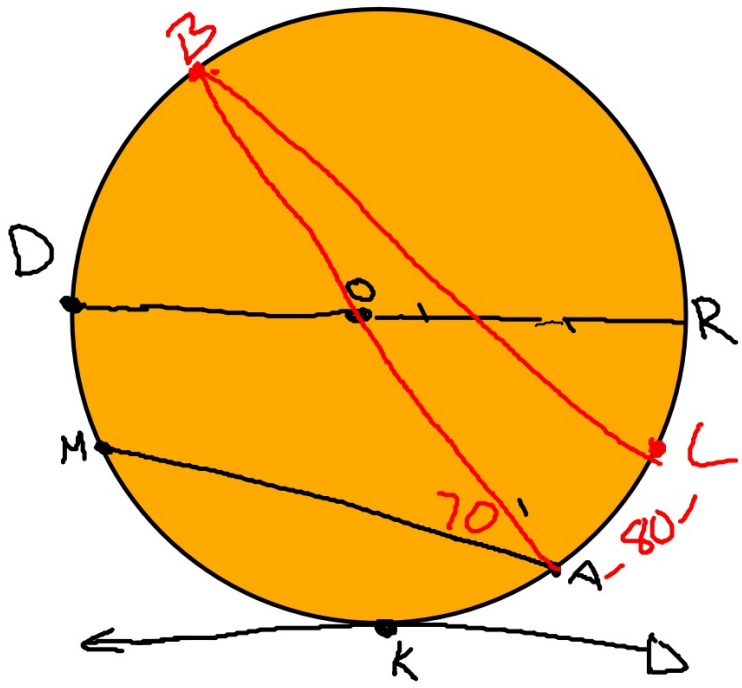
- HW Probs/Act

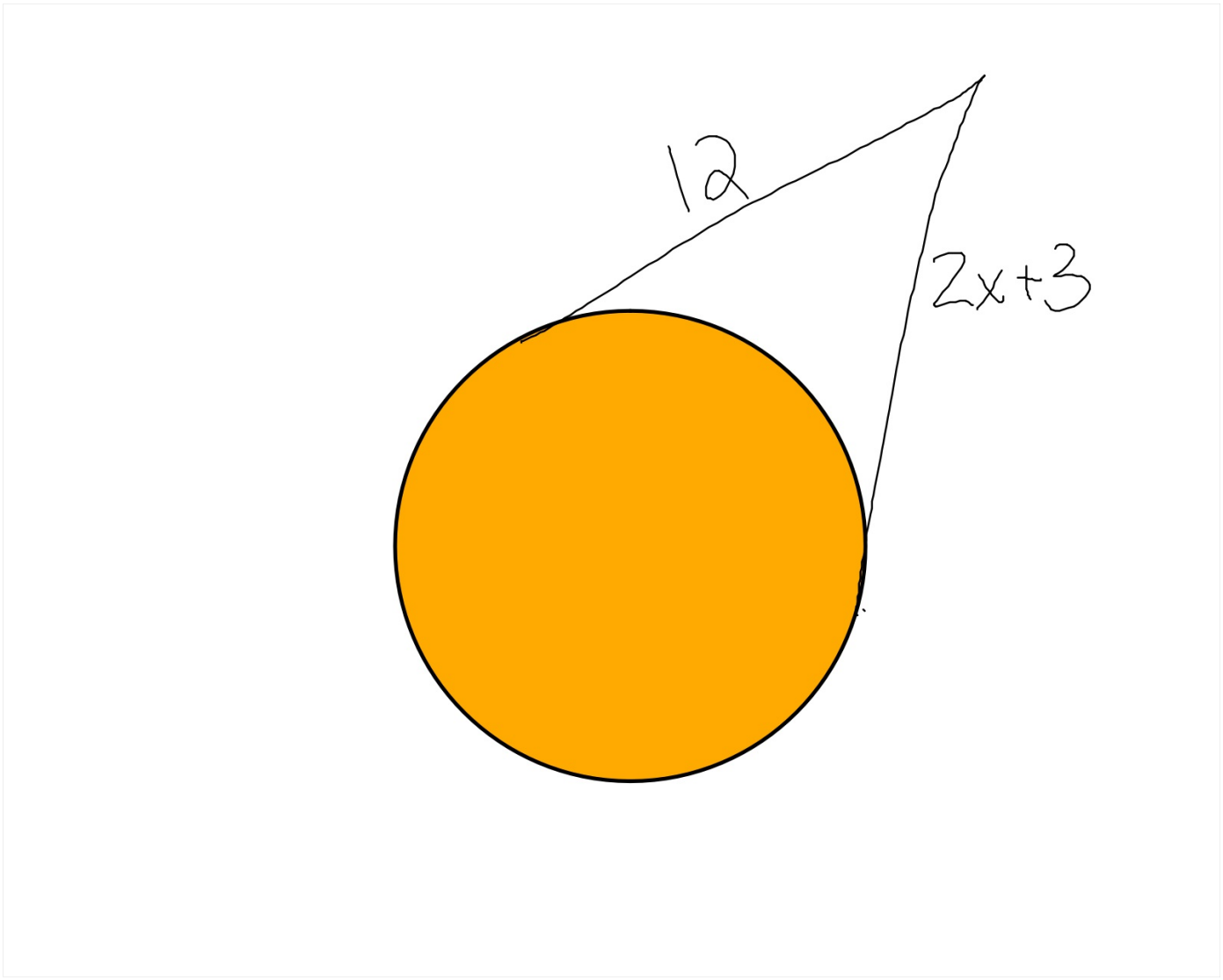


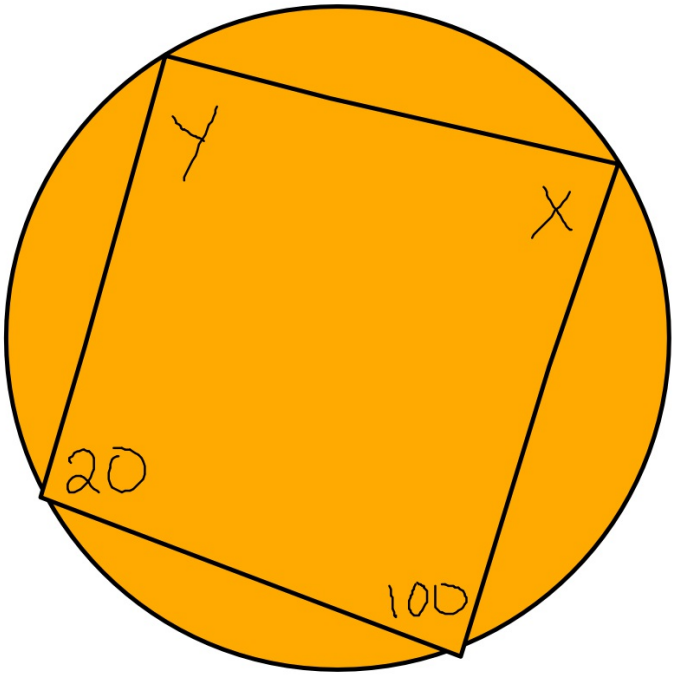
Diameter BT
Central < A
Inscribed <

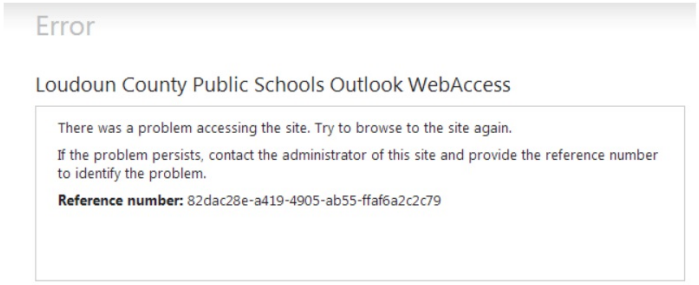
$\angle ABC = \overset{\frown}{AC}$

$\angle ABC = \frac{\overset{\frown}{AC}}{2}$




12
2x+3


Y
X
20
100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Reference number: 82dac28e-a419-4905-ab55-ffaf6a2c2c79

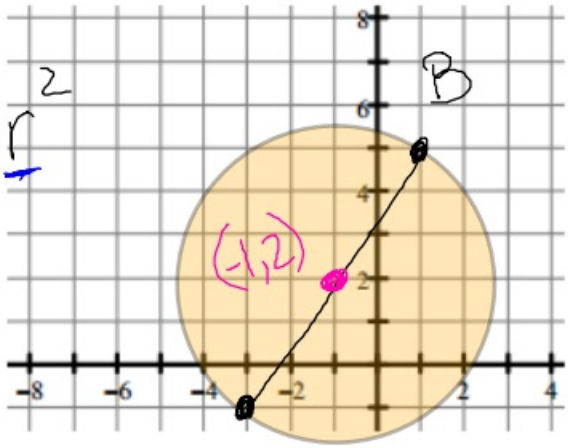
Ex 5] Write the standard equation for a circle with the endpoints of the diameter at A(-3, -1) and B(1, 5).

p. 18

$(x-h)^2+(y-k)^2=r^2$

(h,k) = center

r = radius



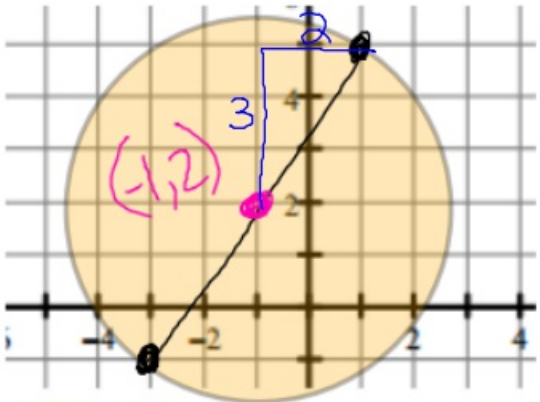
① Find Center by locating midpoint

$(x-(-1))^2+(y-2)^2$

$(x+1)^2+(y-2)^2$

② Find length of Radius

- use distance formula
- use Pythagorean Theorem



$2^2+3^2=r^2$

$4+9=r^2$

$13=r^2$

$(x+1)^2+(y-2)^2=13$

③ Put together ① and ②

In the figure, $\overline{PR}$ and $\overline{QS}$ are diameters of circle U. Find the measure of the indicated arc.

9. $m\overset{\frown}{PQ}$ 42°

10. $m\overset{\frown}{ST}$ ~~34°~~ 74

11. $m\overset{\frown}{TPS}$ ~~326~~ 286 (360 − 74 = 74)

12. $m\overset{\frown}{RT}$ ~~76°~~ 116

13. $m\overset{\frown}{RQS}$ 318° (360 − 42)

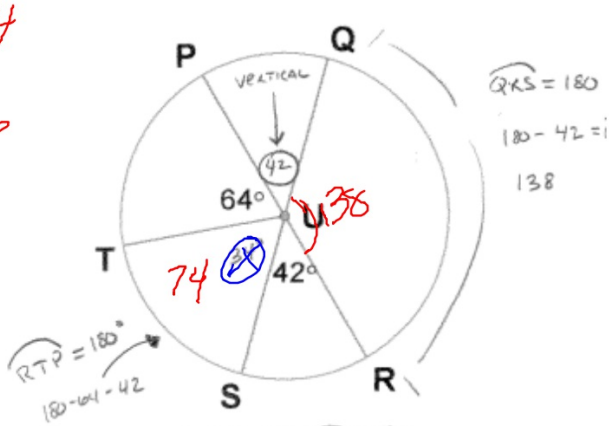
14. $m\overset{\frown}{QR}$ 138°

15. $m\overset{\frown}{PQS}$ ~~262°~~ 222

16. $m\overset{\frown}{TQR}$ 244°

17. $m\overset{\frown}{PS}$ ~~42°~~ 138

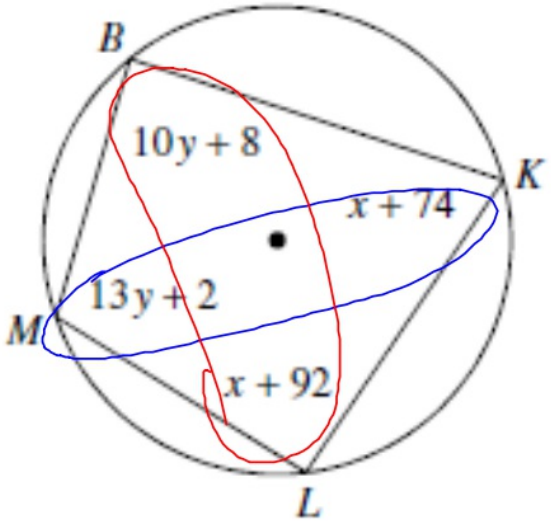
18. $m\overset{\frown}{PTR}$ 180°



(15) 180 + 42 = 222

(17) —

92)



$x+74+13y+2=180$

$x+13y+76=180$

$x+13y=104$

$x+92+10y+8=180$

$x+10y+180=180$

$x+10y=80$

$x+13y=104$

$x+10y=80 \Rightarrow$

$$\begin{bmatrix} 1 & 13 \\ 1 & 10 \end{bmatrix}\begin{bmatrix} x \\ y \end{bmatrix}=\begin{bmatrix} 104 \\ 80 \end{bmatrix}$$

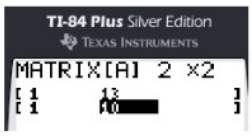
$A \cdot X = B$

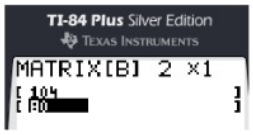
$A^{-1} \cdot B = X$

$$\begin{bmatrix} 0 \\ 8 \end{bmatrix} = X$$

$x=0, y=8$

MATRIX EDIT





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