Geometry 3313
Unit 9 Part 2 Test Review

Name KEY
Date _____ Period _____

LT 7: Given an equation of a circle, I can sketch a circle on a coordinate plan and vice versa.

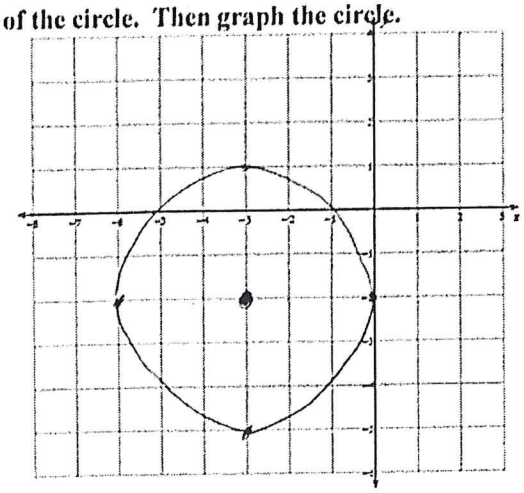
Given the equation of a circle, find the center, and radius of the circle. Then graph the circle.

1. $(x+3)^2+(y+2)^2=9$

Center: $(-3,-2)$

Radius: 3

$\sqrt{9}=3$

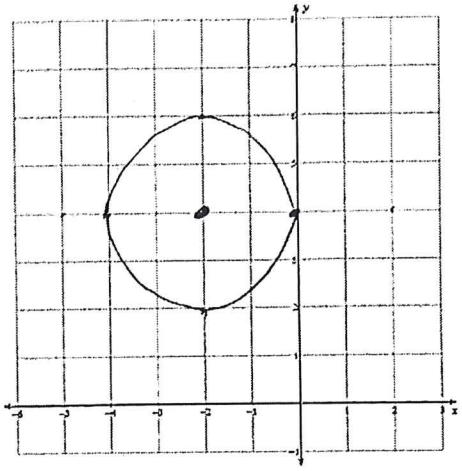


2. $(x+2)^2+(y-4)^2=4$

Center: $(-2,4)$

Radius: $\sqrt{4}=2$

$\sqrt{4}=2$



3. **Write equation of a circle with center (-8, 9) and radius 7.**

$(x+8)^2+(y-9)^2=49$

4. **Write equation of a circle with center (24, -13) and radius 13.**

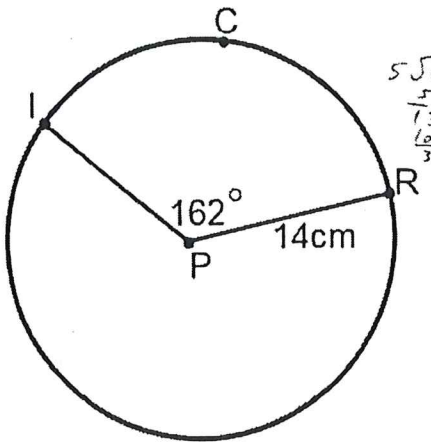
$(x-24)^2+(y+13)^2=169$

LT 6: I can apply the circumference and arc length formulas to solve problems.

For 5-6, find the arc length of the following.

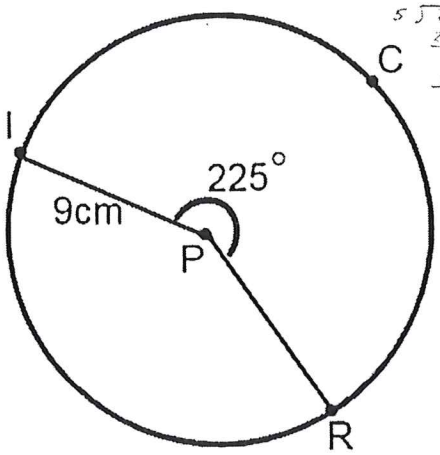
5. **Exact arc length of ICR:** $\frac{63}{5}\pi$ cm $\quad \frac{162}{360} \times 2\pi(14)$

Approximate arc length of ICR: ≈ 39.564 cm $\quad 12.6 \times 3.14$



6. **Exact arc length of ICR:** $\frac{45}{4}\pi$ cm $\quad \frac{225}{360} \times 2\pi(9)$

Approximate arc length ICR: ≈35.4 cm



LT 5: I can identify and apply the relationships between inscribed angles and intercepted arcs.

Find the following missing measures.

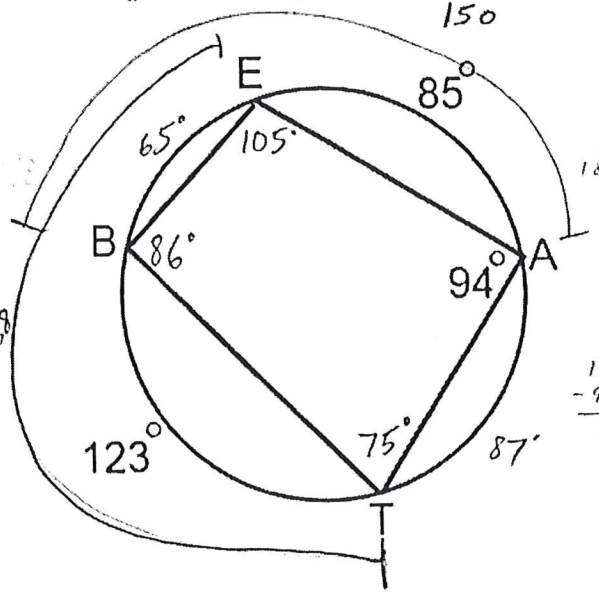
7. $m\angle TBE =$ 86°

8. $m\widehat{AT} =$ 87°

9. $m\widehat{BE} =$ 65°

10. $m\angle ATB =$ 75°

11. $m\angle BEA =$ 105°



Find the following missing measures.

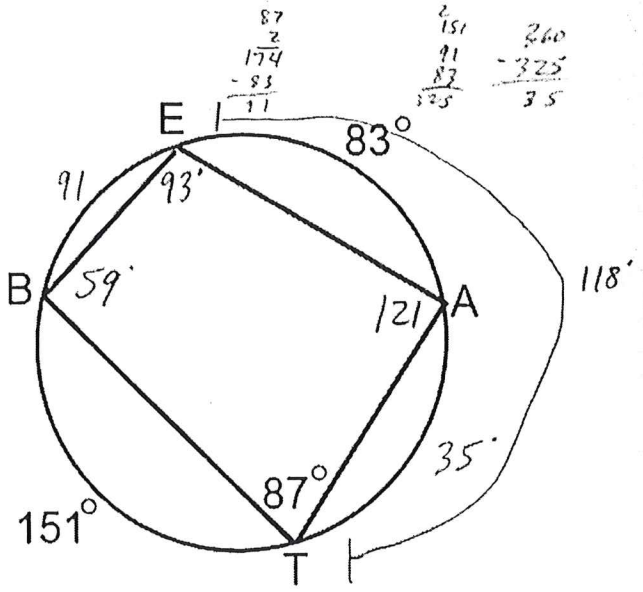
12. $m\angle TBE =$ 59°

13. $m\widehat{AT} =$ 35°

14. $m\widehat{BE} =$ 91°

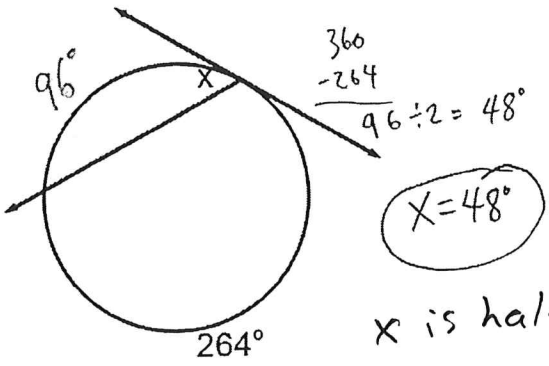
15. $m\ \widehat{ATB} =$ 186°

16. $m\angle BEA =$ 93°



Find the value of the following variables.

17.

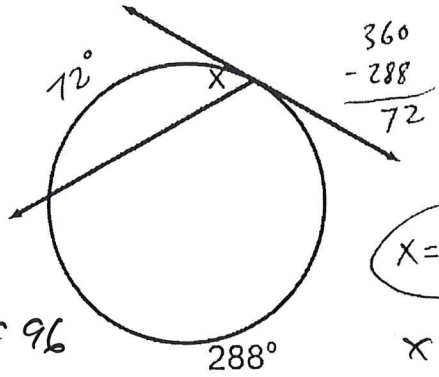


360
-264
96 ÷ 2 = 48°

x = 48°

x is half of 96

18.

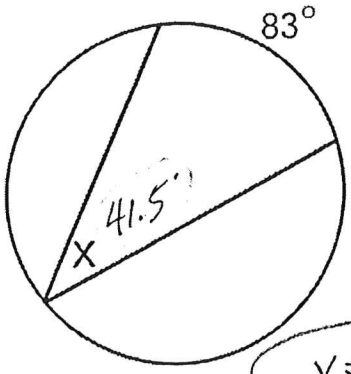


360
-288
72

x = 36°

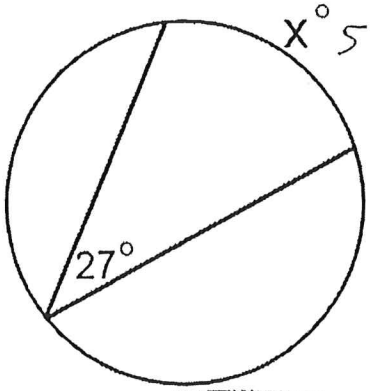
x is half of 72

19.



x = 41.5°

20.



x = 54°