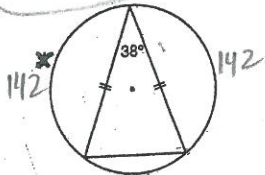


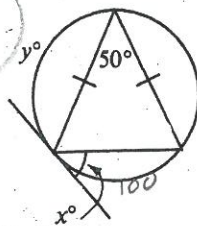
Solve for the variable(s) in each problem. (2 pt ea)

28

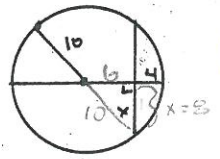
1. $x = 142$



2. $x = 50$
 $y = 130$

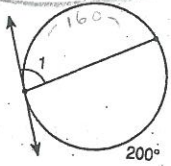


3. $x = 8$

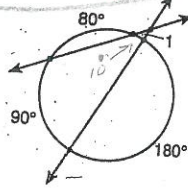


1 pt ea.

4. $m\angle = 80$



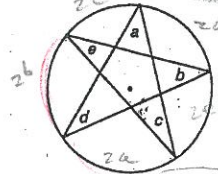
5. $m\angle = 40$



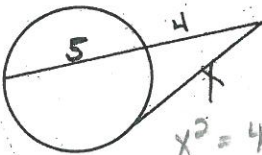
$\frac{90-10}{2}$

6. What is the sum of $a+b+c+d+e$?

180

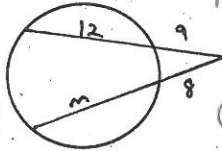


7. $x = 6$



$x^2 = 4(9)$

8. $m =$



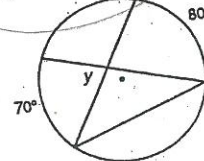
$9(2r) = 8(m+8)$

$189 = 8m + 64$

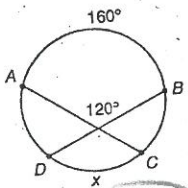
15.63

9. $y =$

75



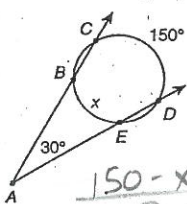
$\frac{80+70}{2}$



$\frac{160+x}{2} = 120$

$x = 80$

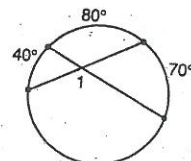
11. $x =$



$\frac{150-x}{2} = 30$

$x = 90$

12. $m\angle = 125$



$\frac{170+80}{2} = \frac{250}{2}$

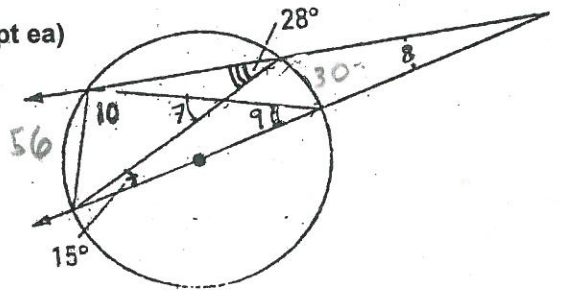
13. Find the measure of the indicated angle in the diagram at right. (1 pt ea)

a. $\angle 7 = 43$

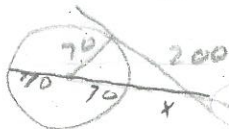
c. $\angle 9 = 28$

b. $\angle 8 = 13$

d. $\angle 10 = 90$



14. A speed skater is skating on a circular path. The radius of the track is 70 ft. The skater falls, leaves the track, and slides for 200 ft. When she comes to a stop, how far is she from the center of the track? (when he slides off track it's in a line tangent to circle) 2pt



211.80 ft

$200^2 + 70^2 = (x+70)^2$

$40000 + 4900 = x^2 + 140x + 4900$

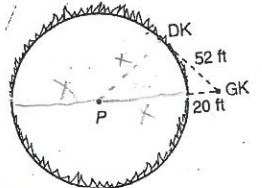
$x^2 + 140x = 40000$

$x = 141.90$

$d = 141.90 + 70$

$d = 211.90$

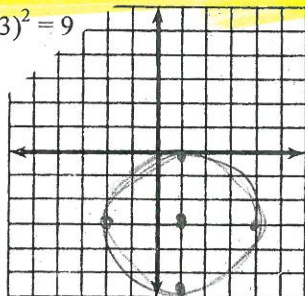
15. Sir Good Knight is standing 20 feet from a circular ring of fire surrounding a Princess, and the Dark Knight is standing 52 ft from Sir Good Knight at the edge of the fire. How far is the fire from the fair Princess? 2pt



$52^2 + x^2 = x^2 + 40x + 400$

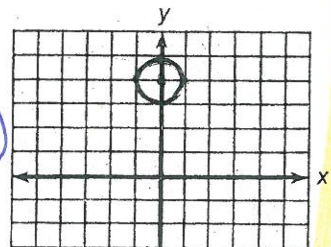
57.6 ft

16. Graph this circle: $(x-1)^2 + (y+3)^2 = 9$



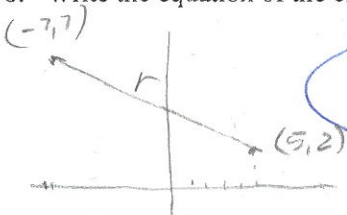
17. Write the equation of the graphed circle. 2pt

$x^2 + (y-4)^2 = 1$



These on back of student's 2pt

18. Write the equation of the circle that has a center of (5,2) and passes through the point (-7,7). 3pt



$(x-5)^2 + (y-2)^2 = 169$

$12^2 + 5^2 = 169$