9.) Write the equation of the circle given the following information: center (-2, 4) and radius 8.

$(x--2)^2+(y-4)^2=8^2 \Rightarrow (x+2)^2+(y-4)^2=64$

10.) Given $(x-5)^2+(y+6)=49$ ($+6 = -(-6)$)

Find the center $(5,-6)$

Find the radius $\sqrt{49}=7$

11.) Use the properties of tangents to circles to answer the following questions.

a.) Verify that line AB is tangent to circle C. $15^2+20^2 \stackrel{?}{=} 25^2$

It's a right △ by Pythagorean Theorem, so it's a right ∠ (⊥)

$225+400 \stackrel{?}{=} 625$

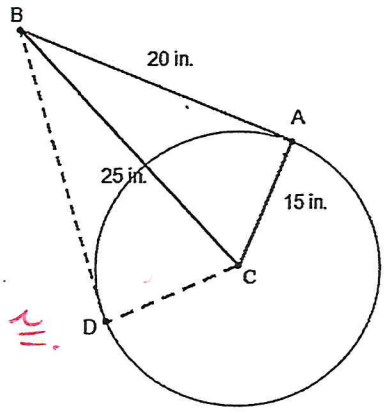
$625=625$ ✓

b.) Find the length of segment BD.

BD = 20 by 2 segments tangent to the same circle from same point are ≅.

c.) Find the length of segment DC.

DC = 15 all radii in same circle are ≅



12) Use the given circle to solve for each variable.

$x+20+x-10+100=360$

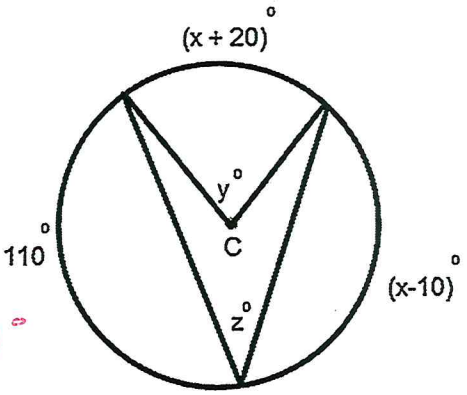
$2x+120=360$

$2x=240$

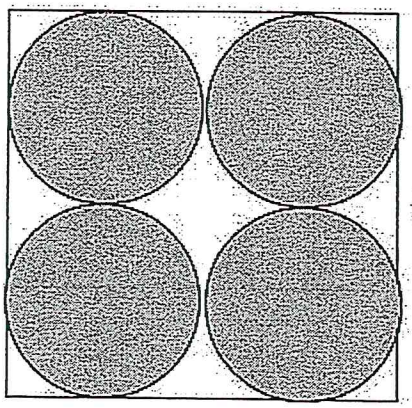
$x=120$

$y=120°$ by CAEIA

$z=\frac{120}{2}=60°$



13) Find area of shaded figures



$d=4\ (8/2)$

$r=2\ (4/2)$

Each circle has area $A=\pi(2)^2$

$A=4\pi$

$\times 4$ circles

$16\pi u^2$