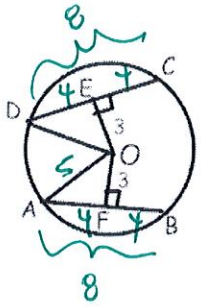
Geometry
Homework: Arcs and Chords

Name: Key
Date: _____

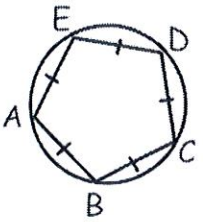
Find the indicated value.

1. AB= 8
DE= 4, AO= 5

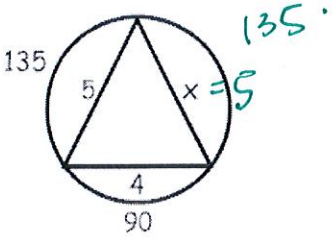


2. m$\overset{\frown}{BC}$ = 72°

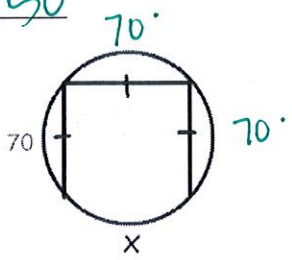
$\frac{360}{5}$ =



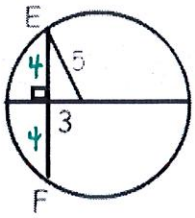
3. x = 5



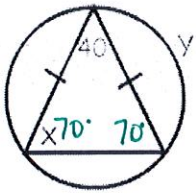
4. x = 150°



5. EF = 8



6. x = 70°, y = 140°



7. A chord is 7cm from the center. The diameter is 50 cm. Find the length of the chord.

$x^2+7^2=25^2$
$x^2+49=625$
$x^2=576$
$x=24$

48 cm

8. A 12 cm chord is 8 cm from the center. Find the length of the radius of the circle.

$6^2+8^2=x^2$
$36+64=x^2$
$\sqrt{100}=\sqrt{x^2}$
$x=10$ cm

9. A chord of a circle is 5 in. from the center and is 24 in. long. Find the length of the radius.

$5^2+12^2=x^2$
$25+144=x^2$
$\sqrt{169}=\sqrt{x^2}$
$x=13$ in

10. A chord is 16 in. long and is 6 in. from the center. Find the length of the radius.

$x=10$ in