

(1) $\widehat{CAD}$ or $\widehat{DAC}$ (2) $\widehat{DB}$ or $\widehat{BD} \rightarrow$ only 2 letters because it is a minor arc.(3) $\widehat{ACE}$, $\widehat{ABE}$, $\widehat{EBA}$ or $\widehat{ECA}$

(4) E

(5) F

(6) D

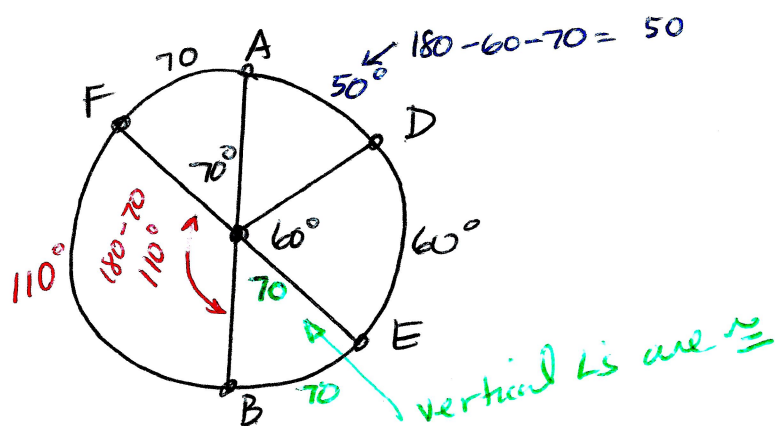
(7) B

(8) A

(9) G

(10) C

(11)



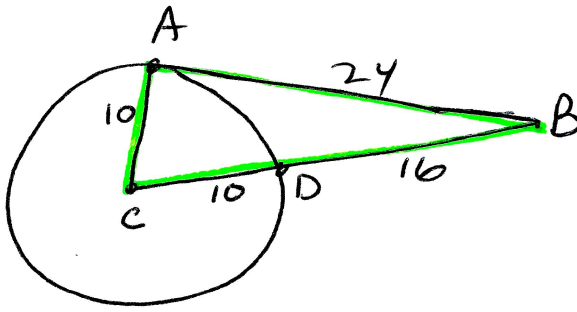
a) $m\widehat{AD} = 50^\circ$

b) $m\widehat{EB} = 70^\circ$

c) $m\widehat{DBF} = 60 + 70 + 110 = 240^\circ$

d) $m\widehat{AFB} = 180^\circ$
Semicircle

(12)

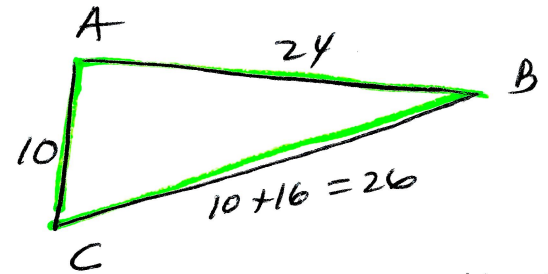


therefore $\triangle ABC$ is
a right $\triangle$ with
 $m\angle A = 90^\circ$

This means

$\overline{AB}$ is Tangent

$\overline{AB}$ is tangent only
if $\angle A$ is 90° which
means $\triangle ABC$ must
be a right $\triangle$
with hypotenuse
of $\overline{BC}$.



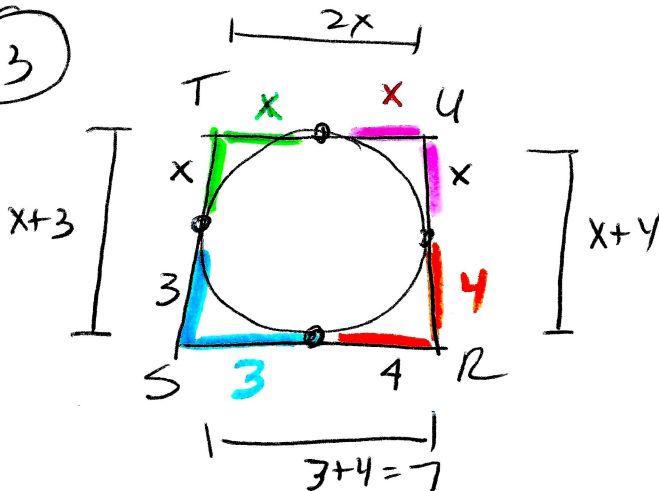
TEST Pythagorean Thm:

$$26^2 \stackrel{?}{=} 10^2 + 24^2$$

$$676 \stackrel{?}{=} 100 + 576$$

$$676 = 676 \checkmark$$

(13)



perimeter = 20

$$(2x) + (x+4) + (7) + (x+3) = 20$$

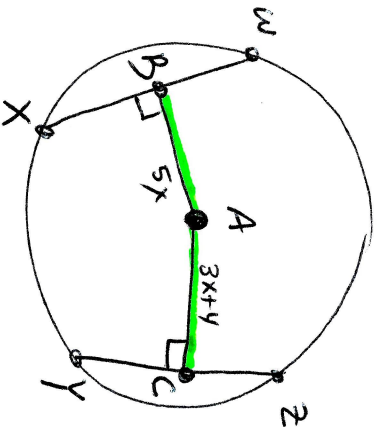
$$4x + 14 = 20$$

$$\begin{array}{r} -14 \\ -14 \end{array}$$

$$\frac{4x}{4} = \frac{6}{4}$$

$x = 1.5$

(14)



Since $\overline{AX} \cong \overline{AY}$ they are the same distance from the center

$$5x = 3x + 4$$

$$-3x \quad -3x$$

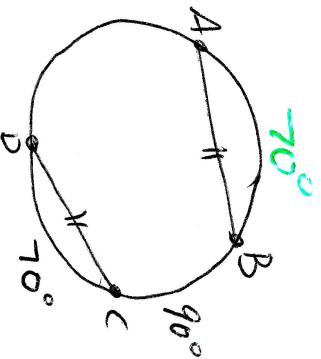
$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

$$AB = 5x = 5(2)$$

$$\boxed{AB = 10}$$

(15)



Since $\overline{AB} \cong \overline{BC}$ their intercepted arcs are $\cong$ as well

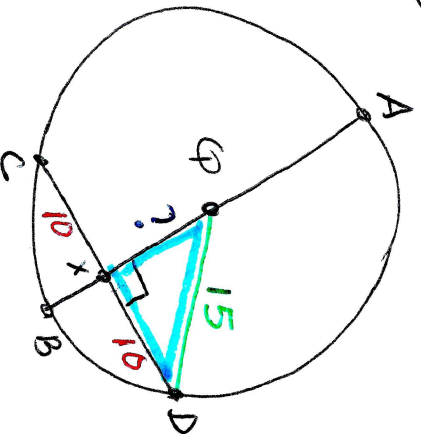
$$\widehat{CD} \cong \widehat{AB}$$

$$m\widehat{AB} = 70$$

$$m\widehat{AD} = 360 - 70 - 90 - 70$$

$$\boxed{m\widehat{AD} = 130^\circ}$$

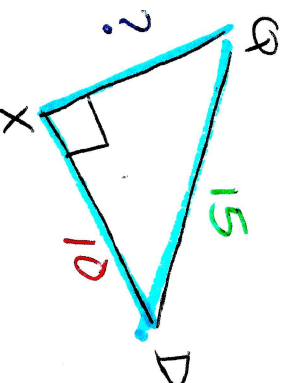
(16)



— since diameter $\overline{AB}$ is $\perp$ to chord $\overline{CD}$ it bisects the chord

$$\text{and } \underline{XC = XD = 10}$$

— Draw radius $\overline{QD}$



$$15^2 = 10^2 + ?^2$$

$$\sqrt{?^2} = \sqrt{15^2 - 10^2}$$

$$\boxed{? = 9x = 11.18}$$