TOPIC 16-3: ARCS & CHORDS
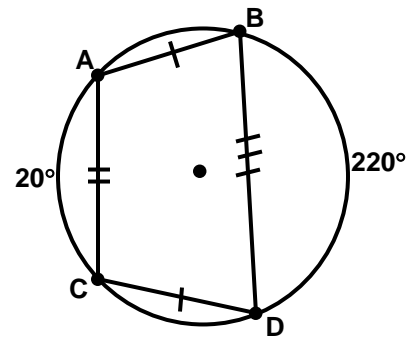
THEOREM: In a circle (or congruent circles), 2 minor arcs are congruent if and only if their corresponding chords are congruent.

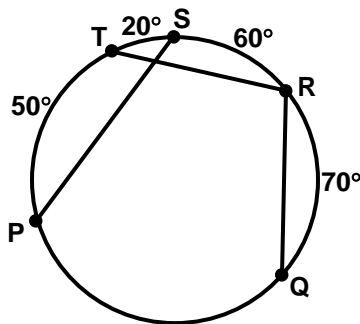**Use the figure to answer the questions below.**

a) **Which two chords are congruent?**

   _____

b) **Which two arcs are congruent?**

   _____

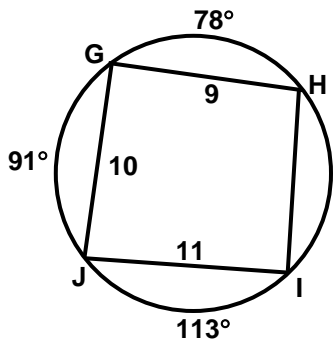c) **What are the measures of their**

   arcs?_____

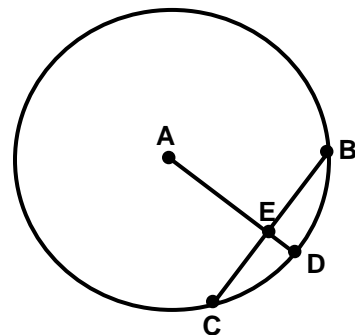**If PS = 12 and TR = 15, then find QR.**

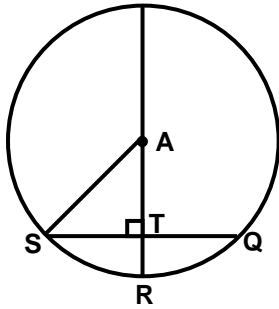**QR = _____**

Find HI.

HI = _____

THEOREM: In a circle, if a diameter (or radius) is perpendicular to a chord, then it bisects the chord and its arc.

$\overline{AD} \perp \overline{BC}$, AE = 12, and the radius is 13. Find the Following:

a) ED = _____

b) AC = _____

c) AB = _____

d) EB = _____

e) EC = _____

f) BC = _____

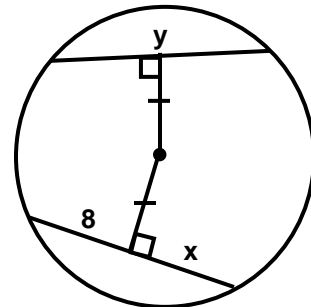**In circle A, SQ = 12 and AT = 8. Find TR.**

TR = _____

THEOREM: In a circle (or congruent circles), two chords are congruent if and only if they are equidistant from the center.
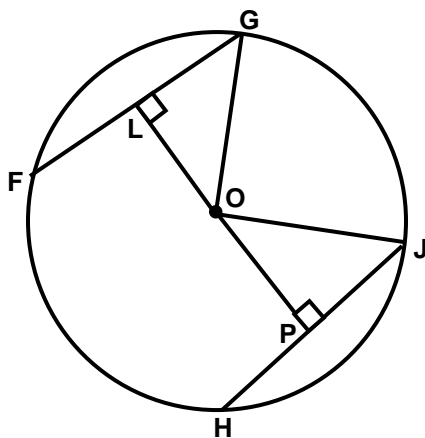
Find the values of 'x' and 'y'.

x = _____

y = _____

In circle O, FL = 3, GO = 5, and OP = 4. Find HJ.

HJ = _____

3