NAME _____   Circle Worksheet #1
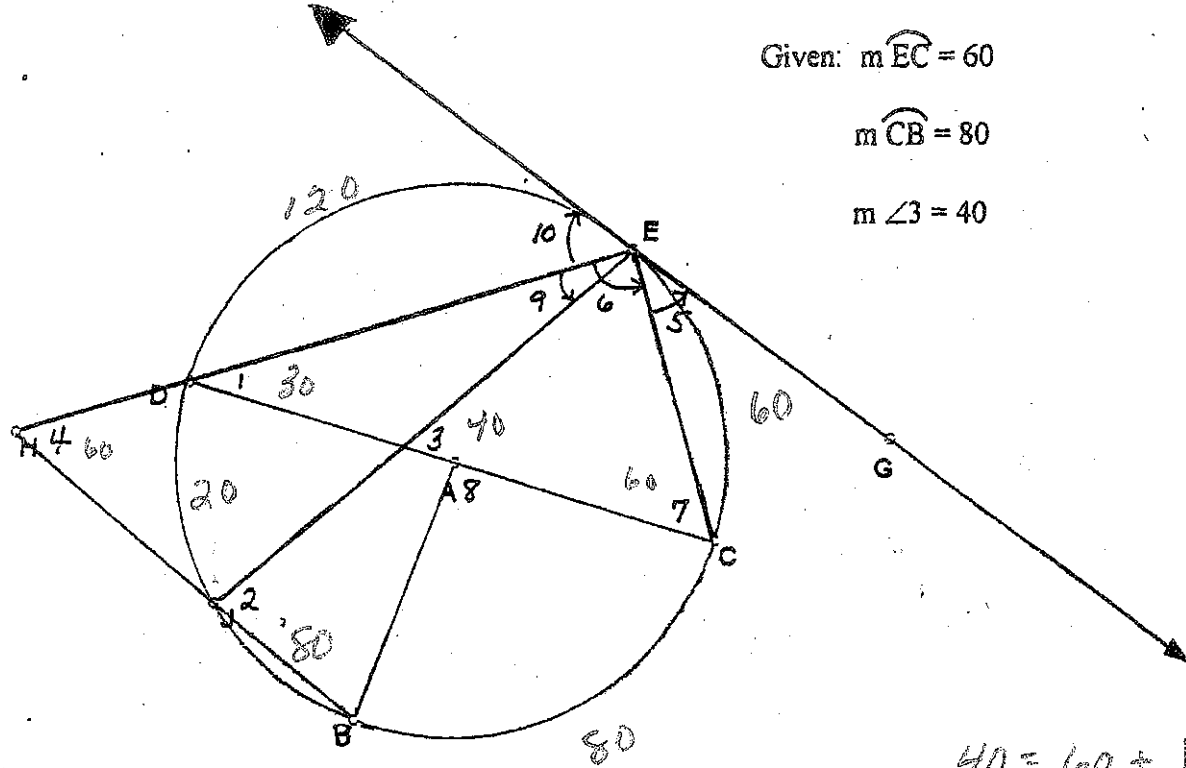
DATE _____   Arcs and Angles

Given: $m\overset{\frown}{EC} = 60$

$m\overset{\frown}{CB} = 80$

$m\angle 3 = 40$

$m\angle 1 = \underline{30}$ $m\overset{\frown}{DJ} = \underline{20}$

$m\angle 2 = \underline{70}$ $m\overset{\frown}{DBC} = \underline{180}$

$m\angle 3 = \underline{40}$ $m\overset{\frown}{DB} = \underline{100}$

$m\angle 4 = \underline{60}$ $m\overset{\frown}{DE} = \underline{120}$

$m\angle 5 = \underline{30}$ $m\overset{\frown}{BJ} = \underline{80}$

$m\angle 6 = \underline{90}$ $m\overset{\frown}{EJB} = \underline{220}$

$m\angle 7 = \underline{60}$
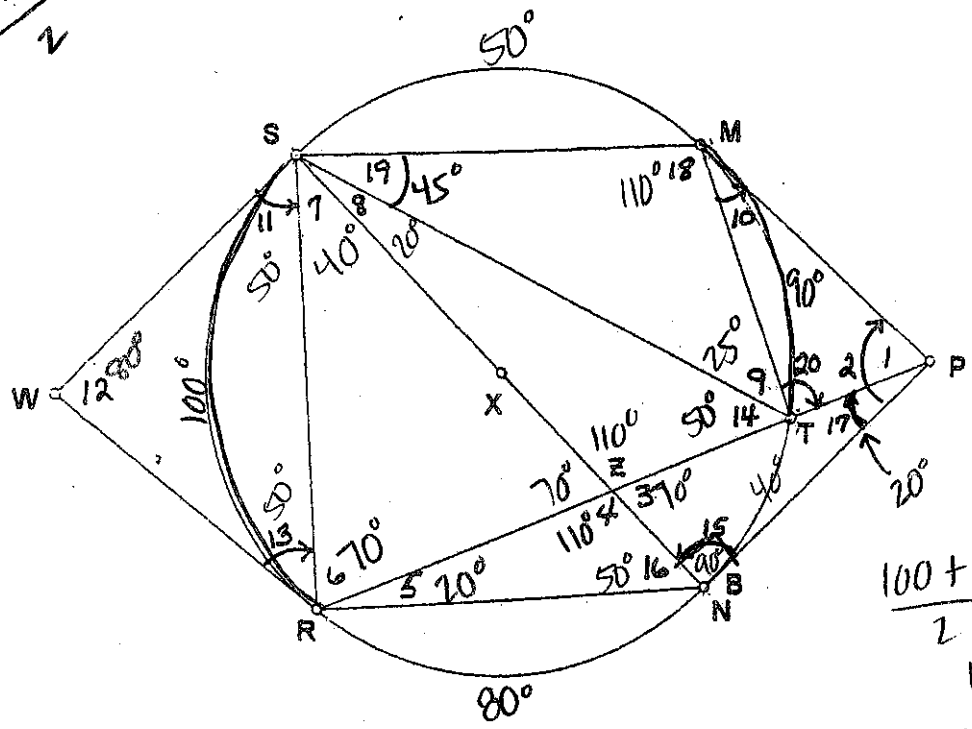
$m\angle 8 = \underline{80}$

$m\angle 9 = \underline{10}$

$m\angle 10 = \underline{60}$

$40 = \dfrac{60 + \overset{\frown}{DJ}}{2}$

$80 = 60 + DJ$

Name __Key__

Date _____

Given: m $\overarc{SR}$ = 100 ✓
m∠17 = 20 ✓
m∠19 = 45 ✓

Points of tangency are M, N, R, S, T

$$\frac{260 - 100}{2} = 12$$

$$\frac{100 + X}{2} = 70$$
$$100 + X = 140$$
$$X = 40$$

Find:

m∠1 = 30°	m∠10 = 45°	m $\overarc{RN}$ = 80°
m∠2 = 50°	m∠11 = 50°	m $\overarc{TN}$ = 40°
m∠3 = 70°	m∠12 = 80°	m $\overarc{SRN}$ = 180°
m∠4 = 110°	m∠13 = 50°	m $\overarc{MT}$ = 90°
m∠5 = 20°	m∠14 = 50°	m $\overarc{SM}$ = 50°
m∠6 = 70°	m∠15 = 90°	m $\overarc{SMN}$ = 180°
m∠7 = 40°	m∠16 = 50°	m $\overarc{TNS}$ = 220°
m∠8 = 10°	m∠18 = 110°	m $\overarc{MRS}$ = 310°
m∠9 = 25°	m∠20 = 105°	m $\overarc{SMR}$ = 260°

Name 3 inscribed triangles   ∠SRN   ∠RTS   ∠TMS