Geometry Worksheet 6.1-4

Name_____
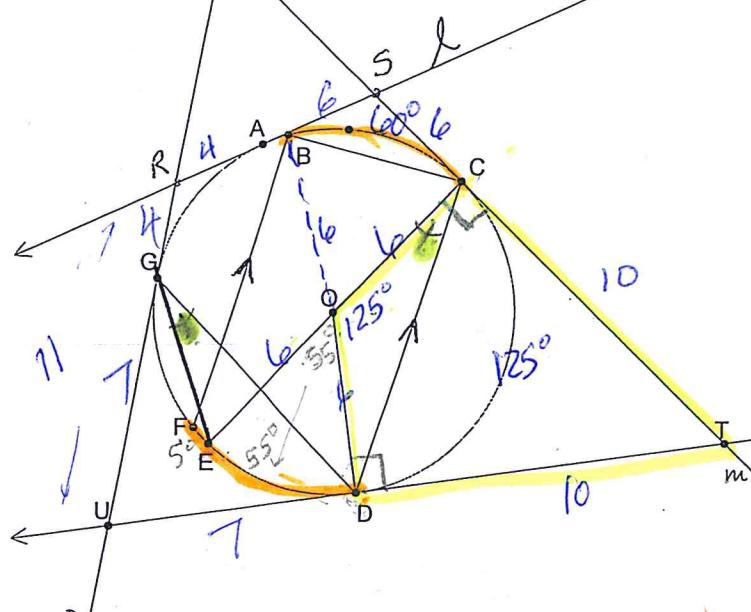
Lines l, m, n, and p are tangent to circle O (O is the center)

$m\overarc{BC} = 60°$ $m\overarc{DC} = 125°$
$\underline{EC} = 12$ cm $\underline{DT} = 10$ cm
$\underline{UR} = 11$ cm $\underline{RA} = 4$ cm
$\underline{SC} = 6$ cm

1) m∠DOC = __125°__ central ∠ to $\overarc{CD}$

2) m$\overarc{FD}$ = __40°__ ($\cong$ to $\overarc{BC}$)

3) m$\overarc{FE}$ = __5°__

4) m∠DOE = __55°__

5) m∠CTD = __55°__ (360-125-90-90)

6) m∠ECB = __40°__ $\overarc{BE}$ = 120°

7) perimeter of DTCO = __32__

$\overarc{ED}$ = 55° / ∠P
to 125

8) Are $\overline{FB}$ and $\overline{CD}$ congruent? __no__
Why or why not? $\overline{FB}$ $\overarc{CD}$=125° $\overarc{FB}$ = 360-125
-60-60
not = 115°

9) Are $\overline{OC}$ and $\overline{CB}$ congruent? __yes__
Why or why not? △COB is equilateral
Central ∠=60

10) perimeter of UTSR = __54__

11) m∠EGD = __27.5°__ inscribed for $\overarc{ED}$

12) m∠DCB = __87.5°__ 60° + inscribed for $\overarc{ED}$

10
10
6
6
—
32

10
10
4
6
4
4
7
—
7

360
60
-125
-55
——
120

m∠EOD = __80°__

m∠OBC = __50°__

m∠ABC = __90°__

m⌢DC = __65°__

m∠ACB = __50°__
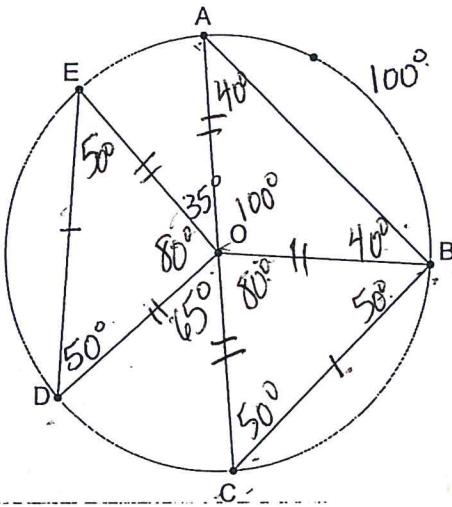
O is the center

Sketch the following:

6) Externally tangent circles
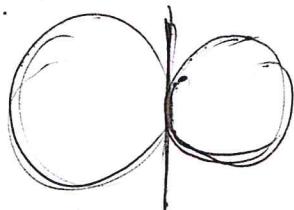
**8) Common internal tangent $\overleftrightarrow{AB}$ and common external tangent $\overleftrightarrow{CD}$.**
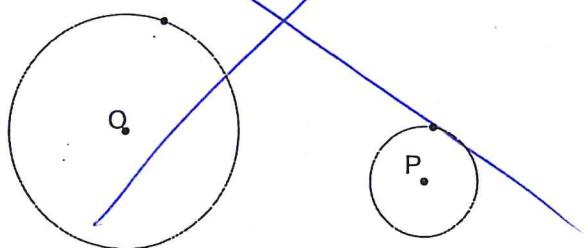
7) Internally tangent circles
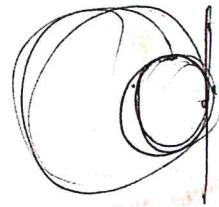
9) Three externally common tangents to circles Q and N.
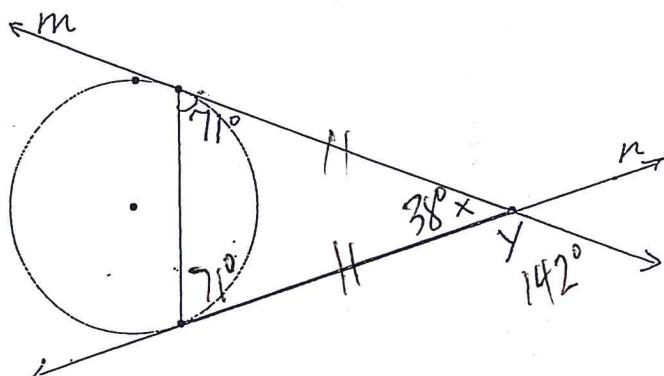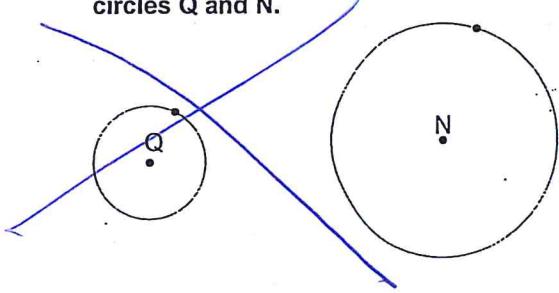
10) Lines m and n are tangent lines.

Find x and y.

x = __38°__   y = __142°__