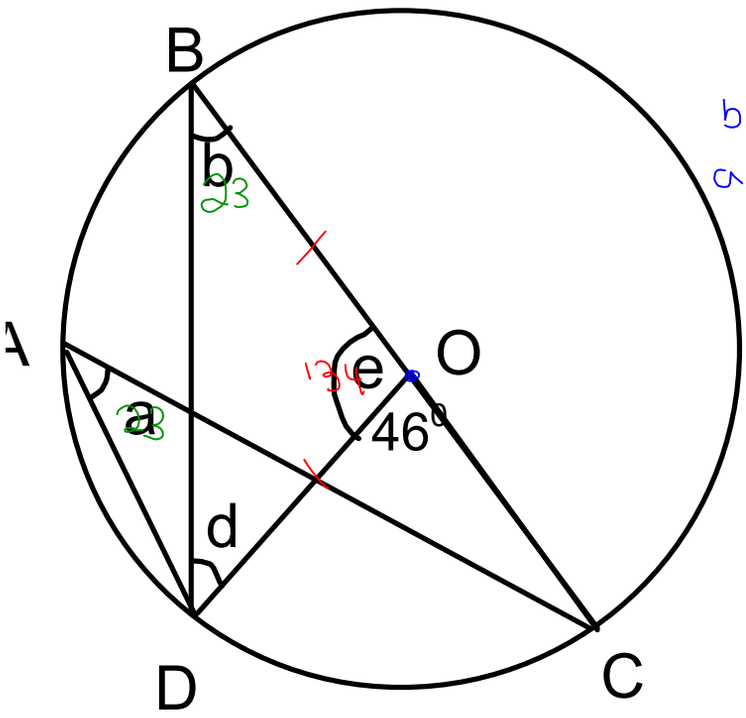
Curriculum Outcomes:

(SS1) Solve problems and justify the solution strategy using circle properties, including: the perpendicular from the centre of a circle to a chord bisects the chord; the measure of the central angle is equal to twice the measure of the inscribed angle subtended by the same arc; the inscribed angles subtended by the same arc are congruent; a tangent to a circle is perpendicular to the radius at the point of tangency.

Student Friendly:
How angles found at the centre of a circle are related to angles formed by two chords found inside the circle.



$\angle DOC = 46^\circ$ (cent)

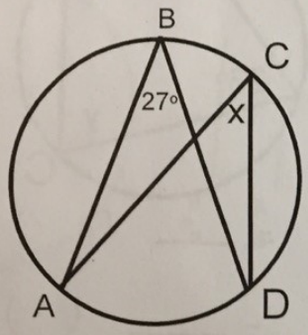
b $\angle DBC = 23$

a $\angle DAC = 23$ (ins/cent, DC)

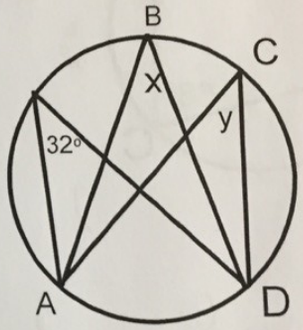
e = $\angle BOD = 134^\circ$ (SAT)

d = $\angle BDO = 23^\circ$ (SATT)
(ItI)

Calculate the unknown angles:

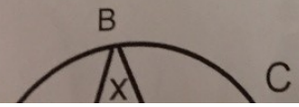


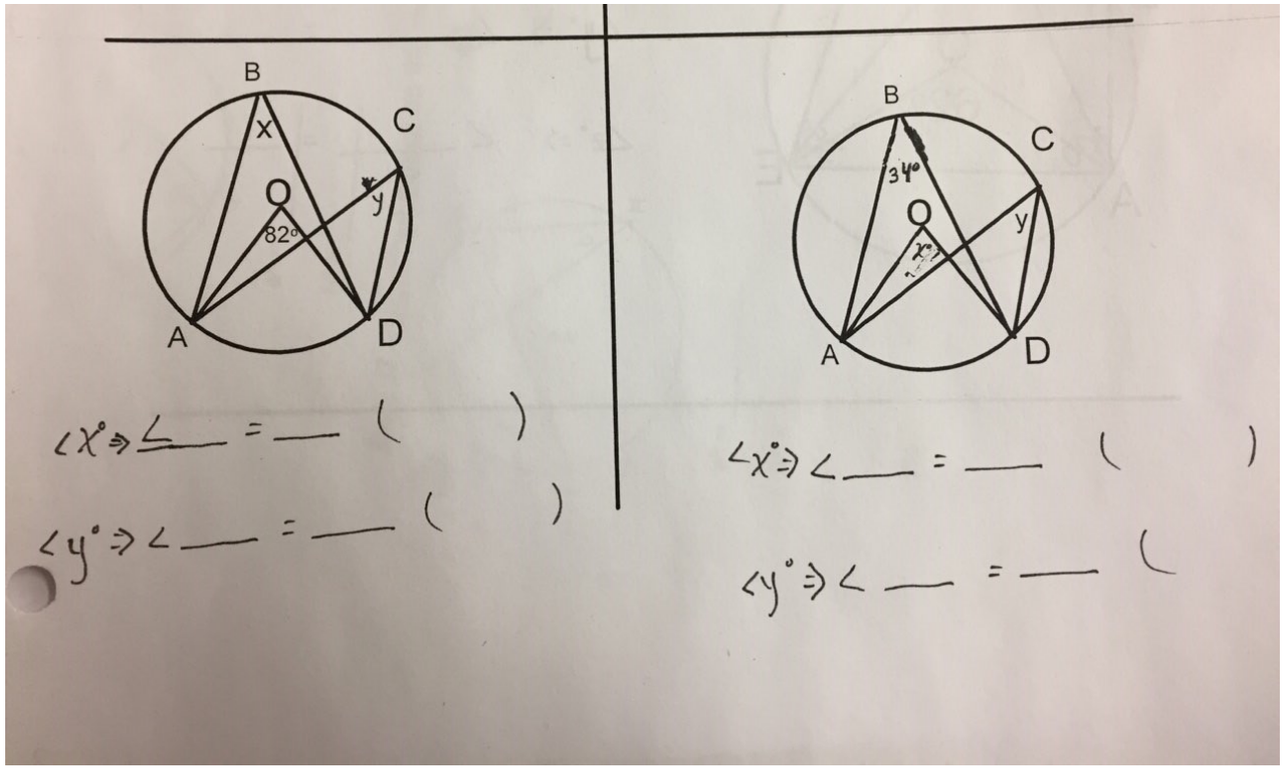
$\angle x^\circ \Rightarrow \angle \_\_ = \_\_$ ( )



$\angle x^\circ \Rightarrow \angle \_\_ = \_\_$ ( )

$\angle y^\circ \Rightarrow \angle \_\_ = \_\_$ ( )





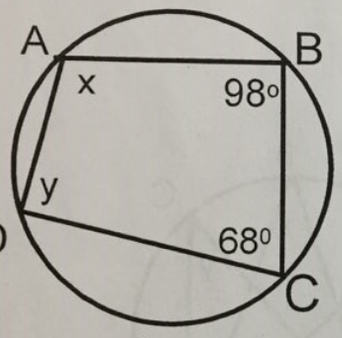
$\angle x° \Rightarrow \angle \_\_\_ = \_\_\_$ ( )

$\angle y° \Rightarrow \angle \_\_\_ = \_\_\_$ ( )

$\angle x° \Rightarrow \angle \_\_\_ = \_\_\_$ ( )

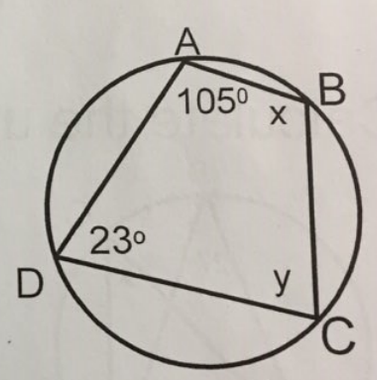
$\angle y° \Rightarrow \angle \_\_\_ = \_\_\_$ (

Calculate the unknown angles:



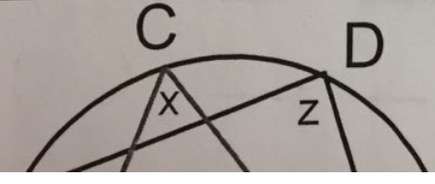
∠ ___ = ___ ( )

⇒ ∠ ___ = ___ ( )

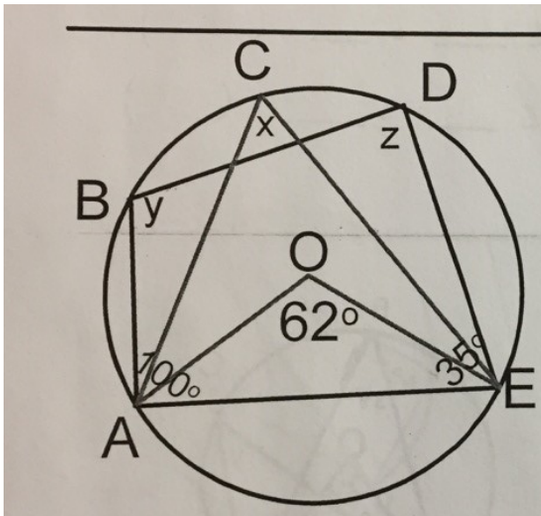


x° ⇒ ∠ ___ = ___ ( )

y° ⇒ ∠ ___ = ___ ( )



∠x ⇒ ∠ ___ = ___ (



$\angle x \Rightarrow \angle$ _____ = _____ (

$\angle y^\circ \Rightarrow \angle$ _____ = _____ (

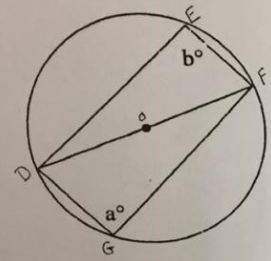
$\angle z^\circ \Rightarrow \angle$ _____ = _____ (

Math

Circle Worksheet #1

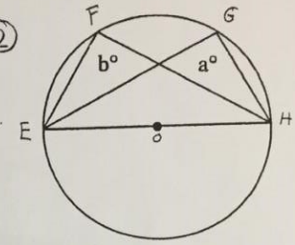
Section 8.7

Rule I – Angles in a semicircle = 90°.

① 

a° = _____

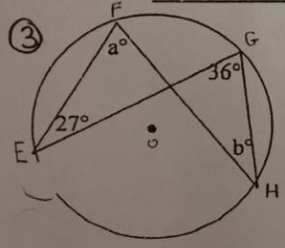
b° = _____

② 

a° = _____

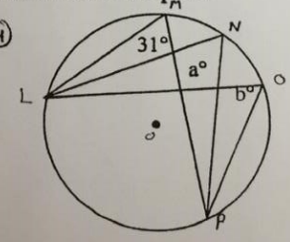
b° = _____

Rule II – Inscribed angles on the same arc are equal.

③ 

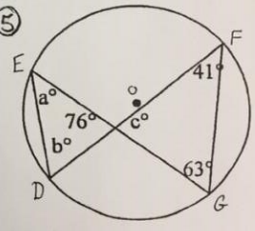
a° = _____

b° = _____

④ 

a° = _____

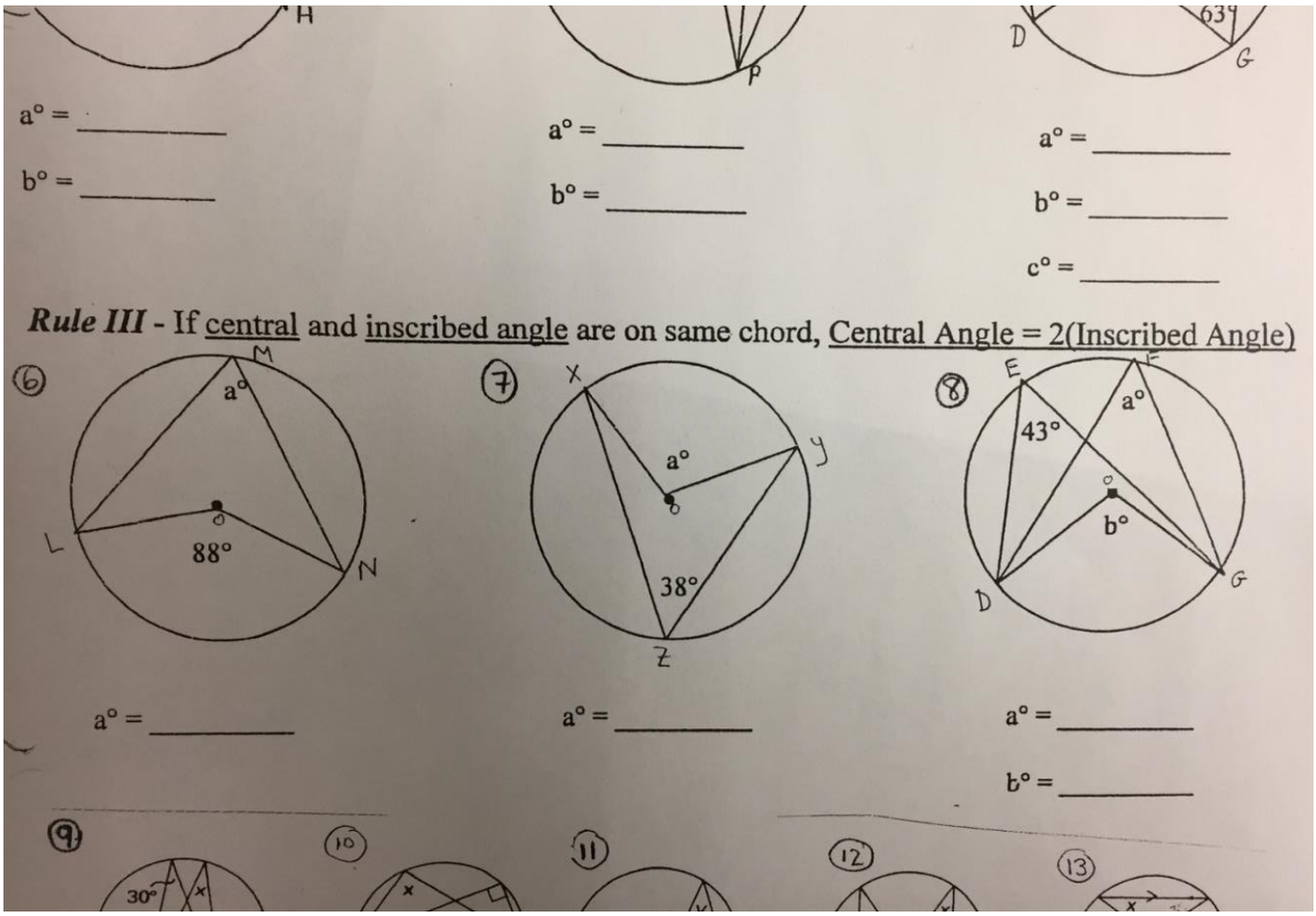
b° = _____

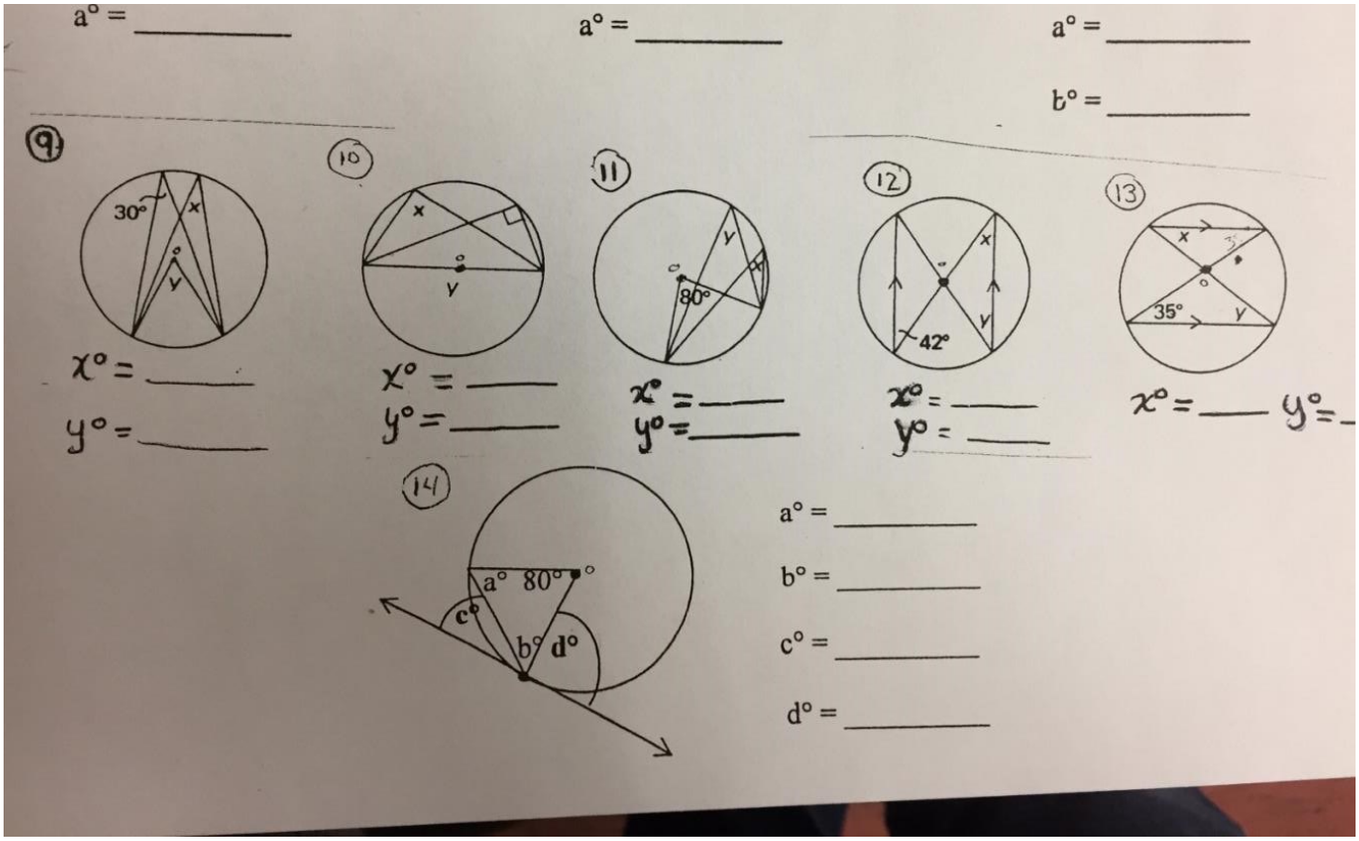
⑤ 

a° = _____

b° = _____

c° = _____


H
P
D
63°
G
a° = _____
b° = _____
a° = _____
b° = _____
a° = _____
b° = _____
c° = _____
Rule III - If central and inscribed angle are on same chord, Central Angle = 2(Inscribed Angle)
6
M
a°
O
88°
L
N
7
X
a°
O
Y
38°
Z
8
E
F
a°
43°
O
b°
D
G
a° = _____
a° = _____
a° = _____
b° = _____
9
30°
x
10
x
11
12
13
x


a° = _____
a° = _____
a° = _____
b° = _____
9
30°
x
y
x° = _____
y° = _____
10
x
y
x° = _____
y° = _____
11
80°
x° = _____
y° = _____
12
x
y
42°
x° = _____
y° = _____
13
x
35°
y
x° = _____ y° = _
14
a° 80°
c°
b° d°
a° = _____
b° = _____
c° = _____
d° = _____

Homework:

p.410 - 412

3
4
5
6
9
11

Copy the questions out into your notebook for Tuesday