Bellwork   Geo   Monday, April 20, 2020

Name each highlighted arc. These are all the same circle. M is the center of the circle. $\overline{GC}$ is a diameter.

1.

2.

3.

2. Use the circles in problem #1 to fill in the blanks.

a) $\overarc{CW} + \overarc{WQ} =$ _____

b) $\overarc{RG} +$ _____ $= \overarc{RQW}$

3. Use the circles in problem #1 to find the measure of each arc. Given: $m\overarc{CW} = m\overarc{GQ}$
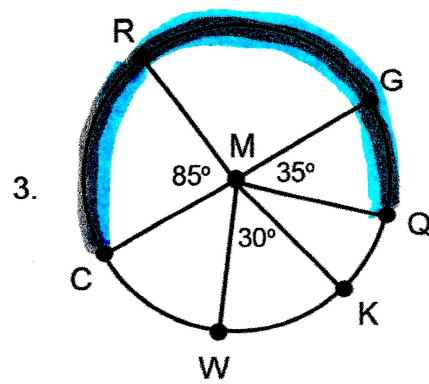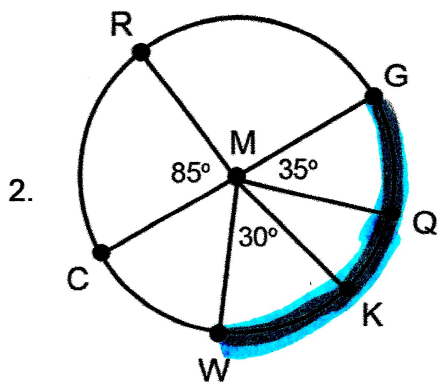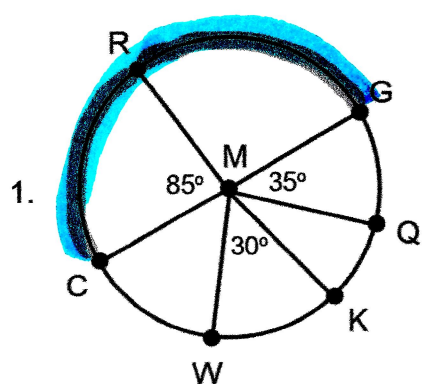
a) $m\overarc{GR} =$
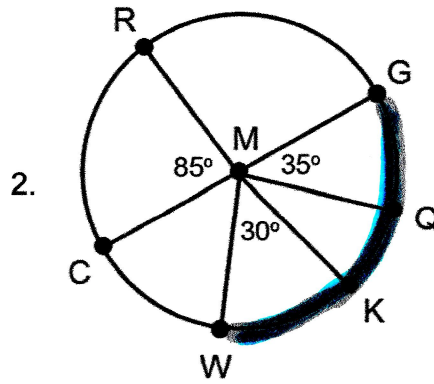
b) $m\overarc{CGK} =$

Name each highlighted arc. These are all the same circle. M is the center of the circle. $\overline{GC}$ is a diameter.
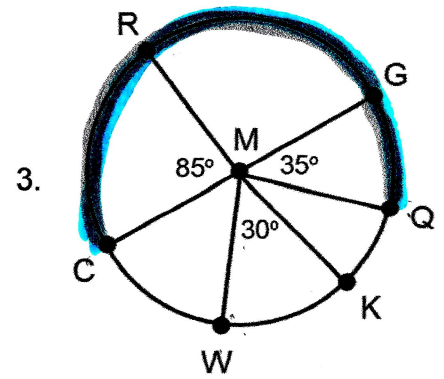
1.

Circle with R, G, M (85°, 35°), Q, 30°, C, K, W
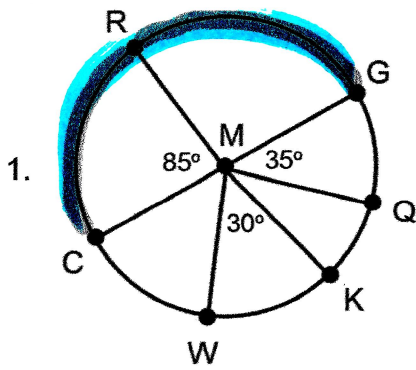
THIS IS a semicircle so need 3 letters

2 ways: $\overarc{CRG}$, $\overarc{GRC}$,

2.

Circle with R, G, M (85°, 35°), Q, 30°, C, K, W

THIS is A MINOR ARC so need 2 letters

2 ways: $\overarc{WG}$ or $\overarc{GW}$

3.

Circle with R, G, M (85°, 35°), Q, 30°, C, K, W

THIS IS A MAJOR ARC So need 3 letters

4 ways:
$\overarc{CRQ}$, $\overarc{CGQ}$,
$\overarc{QRC}$, $\overarc{QGC}$

2. Use the circles in problem #1 to fill in the blanks.

a) $\overarc{CW} + \overarc{WQ} = \underline{\overarc{CQ}}$
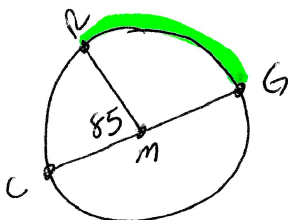
minor arc so only 2 letters

b) $\overarc{RG} + \underline{\overarc{GW}} = \overarc{RQW}$

minor arc so only 2 letters

3. Use the circles in problem #1 to find the measure of each arc. Given: $m\overarc{CW} = m\overarc{GQ}$
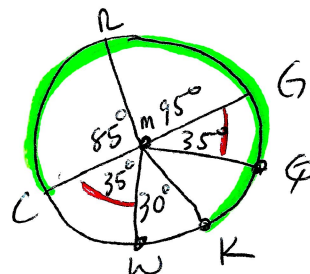
a) $m\overarc{GR} =$

$180° - 85°$

$= \boxed{95°}$

Circle with R, G, 85, m, C — highlighted arc RG

$\overline{CG}$ is a diameter
so $m\overarc{CRG} = 180°$
$\overarc{RG} = \overarc{CRG} - \overarc{CR}$

b) $m\overarc{CGK} =$

Circle with R, 85°, m, 95°, G, 35°, Q, 35°, C, 30°, W, K — highlighted arc

$m\overarc{CGK} = 360° - \overarc{CW} - \overarc{WK}$
$360° - 35° - 30°$
$= \boxed{295°}$

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