

Inscribed and Central Angles in a Circle

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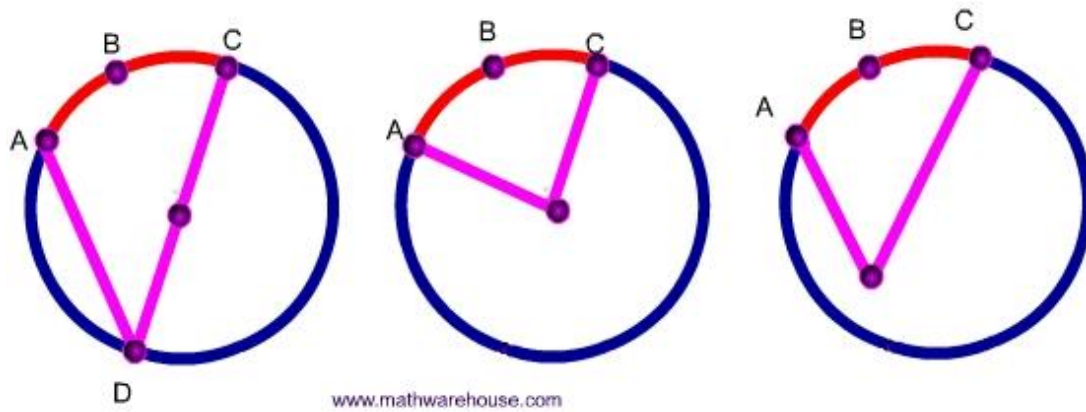
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Vocabulary

chord:

major arc




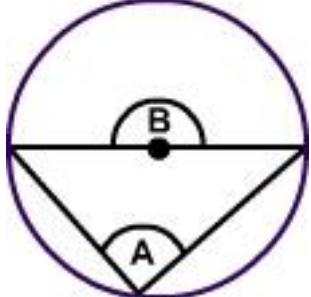
minor arc

intercepted arc:

inscribed angle

central angle

Discover a Pattern

| | |
|--------------------------------|--|
| $m\angle B$ $m\angle A$ |  |
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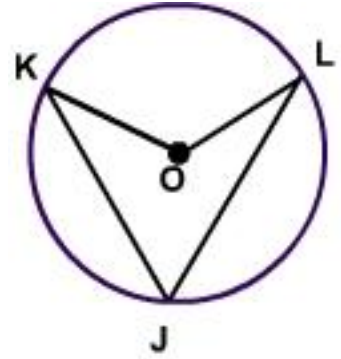
What is the relationship between $m\angle B$ and $m\angle A$?

Model Problems

1) $m\angle KOL$ is 44°

A) What is the measure of minor arc KL ?

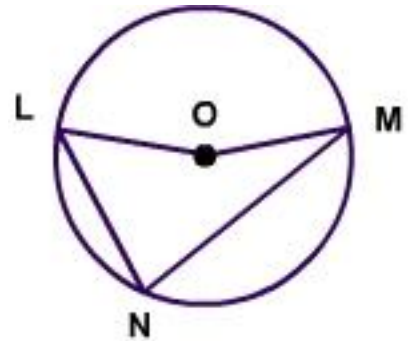
B) What is the $m\angle KOJ$?



2) $m\angle LOM$ is 168°

A) What is the measure of arc LM ?

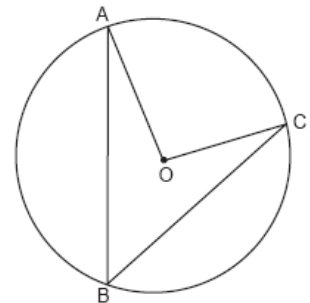
B) What is the $m\angle LNM$?



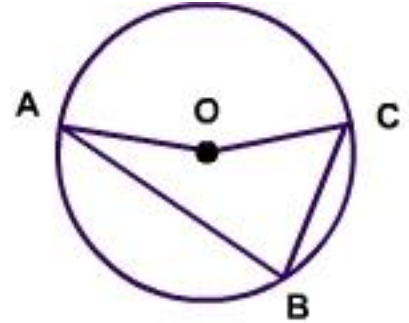
3) If $m\angle AOC = 60^\circ$, what is the measure of

A) minor arc AC

B) $\angle ABC$

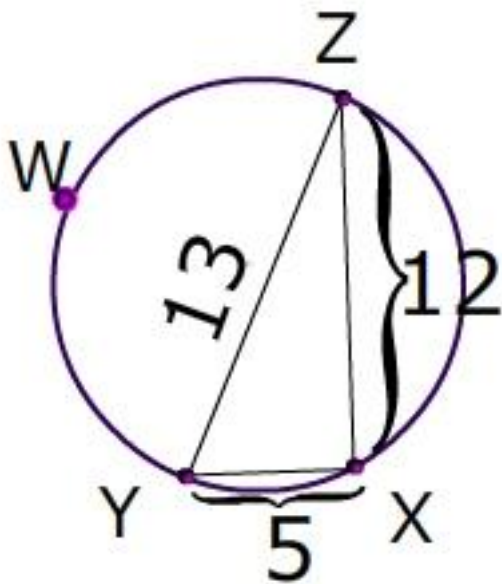


- 4) $m\angle AOC$ is $5x$
- A) What is the measure of arc AC?
- B) What is $m\angle ABC$?



Think Pair Share

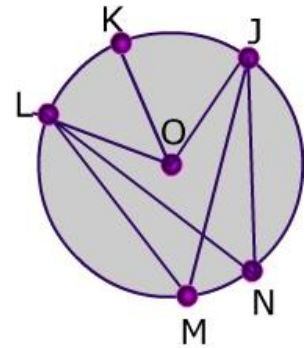
Is \overline{YZ} a diameter? Explain your reasoning



5) If the measure of arc $LKJ = 62^\circ$

A) What is $m\angle LMJ$?

B) What is $m\angle LOJ$?



6) If the measure of arc $KJ = 55^\circ$, $m\angle LOJ = 90^\circ$, MJ is a diameter

Determine the measure of the arcs and angles below

a) arc LK

b) $\angle MNJ$

c) $\angle LMJ$

d) arc LMJ

