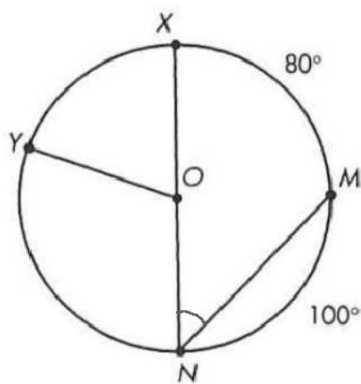


$$m\widehat{XM} = 80^\circ$$

$$m\angle XNM = \underline{410^\circ}$$

$$m\widehat{XN} = \underline{180^\circ}$$

$$m\widehat{MN} = \underline{100^\circ}$$

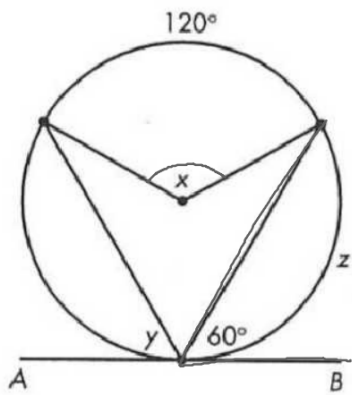


\overline{AB} is a tangent.

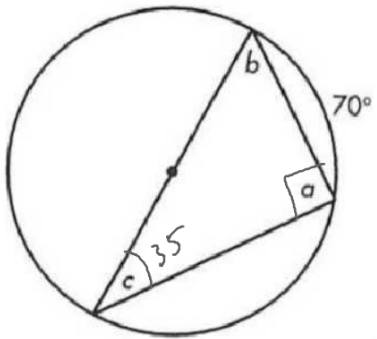
$$x = \underline{\underline{120^\circ}}$$

$$y = \underline{\underline{60^\circ}}$$

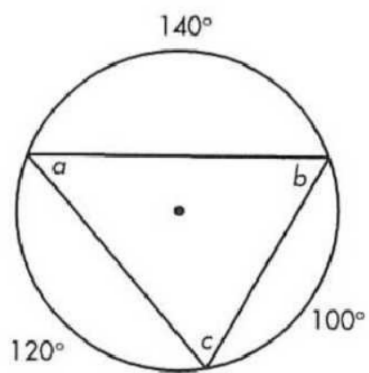
$$z = \underline{\underline{120^\circ}}$$



$$a = \frac{90^\circ}{b = \frac{55^\circ}{}}$$

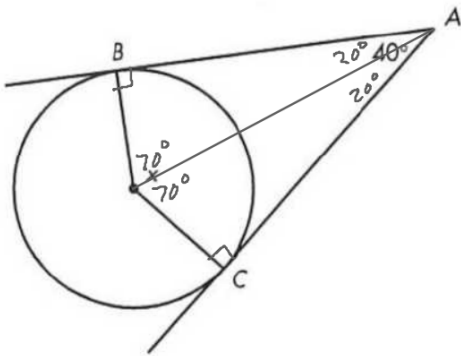


$$a = \frac{50}{}$$
$$b = \frac{60}{}$$
$$c = \frac{70}{}$$



\overleftrightarrow{AB} and \overleftrightarrow{BC} are tangents.

$x = \underline{\quad 140 \quad}$



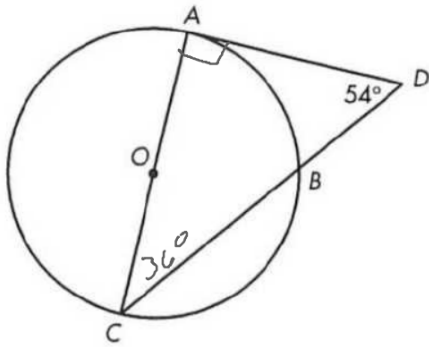
\overline{AD} is a tangent. \overline{AC} is a diameter.

$$m\angle A = \underline{90^\circ}$$

$$m\widehat{AB} = \underline{72^\circ}$$

$$m\angle C = \underline{36^\circ}$$

$$m\widehat{CB} = \underline{108^\circ}$$

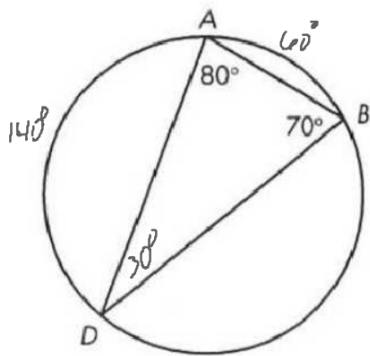


$$m\widehat{AD} = \underline{140^\circ}$$

$$m\angle D = \underline{30^\circ}$$

$$m\widehat{AB} = \underline{60^\circ}$$

$$m\widehat{DAB} = \underline{200^\circ}$$



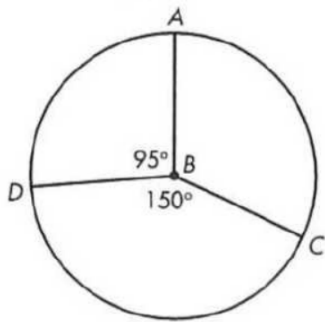
$$m\angle ABC = \underline{115^\circ}$$

$$m\widehat{AD} = \underline{95^\circ}$$

$$m\widehat{DC} = \underline{150^\circ}$$

$$m\widehat{ADC} = \underline{245}$$

$$m\widehat{ACD} = \underline{265}$$



Find the lettered angle measures and arc measures.

- $a =$ _____
- $b =$ _____
- $c =$ _____
- $d =$ _____
- $e =$ _____
- $f =$ _____
- $g =$ _____
- $h =$ _____
- $j =$ _____
- $k =$ _____
- $m =$ _____
- $n =$ _____
- $p =$ _____

