## Angles in Circles

Like with segments, the angles in a circle are related to each other and to the arcs that they create. Also like with segments, these relationships follow a set of rules.

Central Angle	Inscribed Angle	Interior Vertical Angles	Exterior Angle
central = arc	2(inscribed) = arc	$2(interior) = arc_1 + arc_2$	$2(exterior) = arc_1 + arc_2$
EX:	EX:	EX:	EX:
$x = \boxed{54^{\circ}}$	$ \begin{array}{c} 156^{\circ} \\ x^{\circ} \end{array} $ $ 2(x) = 156 \\ x = \boxed{78^{\circ}} $	$ \begin{array}{c} x^{\circ} \\ 80^{\circ} \\ 2(x) = 136 + 80 \\ 2x = 216 \\ x = \boxed{108^{\circ}} \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

Determine the value of *x*.



