

Name: _____ Date: _____

What did the Mama Lion say when she saw her cub chasing a hunter around a tree?

To find out, figure out the degree measure of each lettered angle and arc in the circles below. Then place the corresponding letter above each number.

H O W M A N Y T I M E S H A V E
 203 66 19 60 37.5 76 129 107 135 60 25 51 203 37.5 100 25

I T O L D Y O U N O T T O
 135 107 66 105 35 129 66 48 76 66 107 107 66

P L A Y W I T H Y O U R F O O D ?
 170 105 37.5 129 19 135 107 203 129 66 48 81 96 66 66 35

Circle 1: Angle = $\frac{\text{arc}}{2}$. $\frac{75}{2} = 37.5$. Angle A° , arc 75° .

Circle 2: Angle = $\frac{\text{arc}}{2}$. $85(2) = 170$. Angle 85° , arc p° .

Circle 3: Angle = $\frac{\text{arc}}{2}$. $\frac{120}{2} = 60$. Angle M° , arc 120° .

Circle 4: angle = arc. 135° . Angle I° .

Circle 5: angle = arc. 96° . Angle F° .

Circle 6: angle = $\frac{\text{arc}}{2}$. $\frac{70}{2} = 35$. Angle D° , arc 70° .

Circle 7: opposite angles. $180 - 80 = 100$. Angle 80° , arc V° .

Circle 8: angle = $\frac{\text{arc} + \text{arc}}{2}$. $\frac{160 + 50}{2} = 105$. Angle L° , arc 50° .

Circle 9: angle = $\frac{\text{arc} + \text{arc}}{2}$. $\frac{54 + 48}{2} = 51$. Angle 54° , arc 48° . Angle S° , arc Y° . $180 - 51 = 129$. Angle Y° .

Circle 10: Angle = $\frac{\text{arc} + \text{arc}}{2}$. $\frac{x + 105}{2} = 154$. Angle 105° , arc H° . $x + 105 = 308$. Angle 154° .

Circle 11: arc - arc = angle. $\frac{132 - 36}{2} = 48$. Angle U° , arc 36° . Angle 132° , arc U° . $132 - 36 = 96$. Angle U° .

Circle 12: arc - arc = angle. $\frac{100 - 50}{2} = 25$. Angle 150° , arc 100° . Angle 50° , arc E° . Angle 60° .

Circle 13: $\frac{x - 47}{2} = 30$. Angle 30° , arc T° . $x - 47 = 60$. Angle 47° . $x = 107$.

Circle 14: Angle 142° , arc N° . 38 .

Circle 15: $\frac{162}{2} = 81$. Angle 162° , arc R° . 81 . Angle W° . $\frac{38}{2} = 19$. Angle 38° .

Circle 16: Angle 114° , arc O° . Angle 66° .