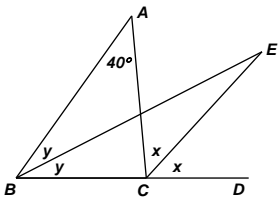
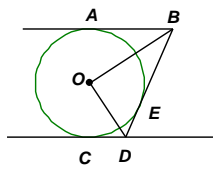


Practice: What is the area of the circle circumscribing a triangle whose sides are 5, 3, & 4?	$25\pi/4$
1.1 What is the total number of diagonals in a 20-gon?	170
1.2 The sides of a triangle are 5, 6, and 7. What is the length of the altitude to the longest side?	$\frac{12\sqrt{6}}{7}$
1.3 The area of a polygon is 196 in^2 and its shortest side is 4 in. Find the area of a similar polygon whose shortest side is 8 in.	784
1.4 The ratio of the area of two circles is 9 : 1. If the radius of the smaller circle is 3, what is the larger radius?	9
1.5 Find the length of a span (shortest segment connecting two non-adjacent vertices) of a regular hexagon whose side is four units in length.	$4\sqrt{3}$
2.1 Find the area of the circle which contains the points (0,6), (6,0) and (6,6)	18π
2.2 The radius of a circle is 5 inches. Tangents drawn from an external point P form an angle of 120° . How far is P from the center of the circle?	$\frac{10\sqrt{3}}{3}$
2.3 A regular polygon with 165° as the measure of an interior \angle has _____ sides.	24
2.4 What is the shortest altitude of a triangle with side lengths 30, 40 and 50?	24
2.5 What is the measure of angle E in the diagram?	20
	
3.1 Find the area of the circle that circumscribes a regular octagon whose side is 8.	$(64 + 32\sqrt{2})\pi$
3.2 If $\frac{x}{2} = \frac{y}{3} = \frac{z}{5}$, then $\frac{x+y+z}{x} = ?$	5
3.3 What is the area of a regular hexagon with side length $5\sqrt{3}$?	$\frac{225\sqrt{3}}{2}$
3.4 Find, in inches, the radius of a circle in which a chord two feet long is sixteen inches from the center.	20
3.5 How many sides are there in an equiangular polygon if each exterior angle of the polygon is equal to an interior angle of an equilateral triangle?	6
4.1 What is the radius of a circle inscribed in a regular hexagon whose area is $51\sqrt{3}$?	$\frac{\sqrt{102}}{2}$
4.2 Two circles of radii 7 and 5 are externally tangent. How long is their common external tangent?	$2\sqrt{35}$
4.3 Find the mean proportional between 12 and 6.	$6\sqrt{2}$
4.4 The area of a 30° sector of a circle is 100 square units. What is the radius of this circle?	$\frac{20\sqrt{3}\pi}{\pi}$
4.5 In the figure $\overline{AB} \parallel \overline{CD}$. If \overline{BD} is a tangent find $m\angle BOD$	90°
	

E.1 The sum of the interior angles of a polygon is ten times the sum of the exterior angles. How many sides does the polygon have?	22
E.2 How many degrees in each interior angle of a regular dodecagon?	150