

- 1] In quadrilateral ABCD, $\angle A = 2X$, $\angle B = X + 20$, $\angle C = 2X - 10$ and $\angle D = X - 10$
Draw the picture and find all angles. Circle all answers!

- 2] In rectangle HAPY diagonal HP is 50 and height HA is 30.
Draw the picture and find the perimeter and area of rectangle HAPY. Circle all answers!

- 3] Given regular nonagon ILOVEMATH
Draw the picture and find the measures of an interior angle and an exterior angle. Circle all answers!

- 4] Line AB and line CD are parallel and cut by transversal AD.
Two consecutive (same-side) exterior angles are $5X - 20$ and $3X + 40$
Draw the picture and find everything. Circle all answers!

- 5] In Circle U, central angle FUN equals twenty-four degrees, and segment UN equals ten meters.
Draw the picture and Find the length of arc FN.
- 6] Given circle P and central angle CPU. $\angle CPU = 5X - 50$ and minor arc $CU = 3X + 30$
Draw the picture and find everything you can. Circle all answers!
- 7] In circle K, chord AB and chord CD intersect at J. If segment $JA = 6$, segment $JB = 8$, and segment $JD = 12$; find the length of segment JC.
Draw the picture and find everything. Circle all answers!
- 8] Two secants: CBA and CDE intersect circle K, creating chords BA and DE.
Find the length of all possible segments if segment $CB = 9$, segment $BA = X$, segment $CD = 4$ and segment $DE = 9$. Also find angle C if arc $AE = 100$ degrees and arc $BD = 50$ degrees.
Draw the picture and find everything you can. Circle all answers!
- 9 and 10] You are standing outside of a circular fence. The tangents to each side of the fence are 40 meters long, and the radius of the circular fence is 30 meters. What is your closest distance to the fence?
Draw the picture and find everything. Circle all answers!