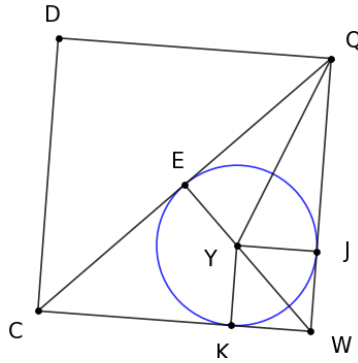


## Synthesis Diagram

Image:



Logic Forms:

"Points": ["W", "C", "D", "Q", "E", "J", "K", "Y"],

"Lines": ["WC", "CD", "DQ", "QW", "QC", "YE", "YJ", "YK", "YW", "YQ"],

"Shapes": ["Circle(Y)", "Square(W, C, D, Q)"],

"Properties": [

"Square(W, C, D, Q) with Parallel(Line(W, C), Line(Q, D)),  
Parallel(Line(C, D), Line(W, Q)),  
Perpendicular(Line(W, C), Line(C, D)),  
Perpendicular(Line(C, D), Line(D, Q)),  
Equals(LengthOf(Line(W, C)), LengthOf(Line(C, D))),  
Equals(LengthOf(Line(C, D)), LengthOf(Line(D, Q))),  
Equals(LengthOf(Line(D, Q)), LengthOf(Line(Q, W)))";

],

"Relations": [

"PointLiesOnCircle(E, Circle(Y, radius\_0\_0))",  
"PointLiesOnCircle(J, Circle(Y, radius\_0\_0))",  
"PointLiesOnCircle(K, Circle(Y, radius\_0\_0))",  
"Incircle(Circle(Y, radius\_0\_0), Triangle(W, C, Q))"

],

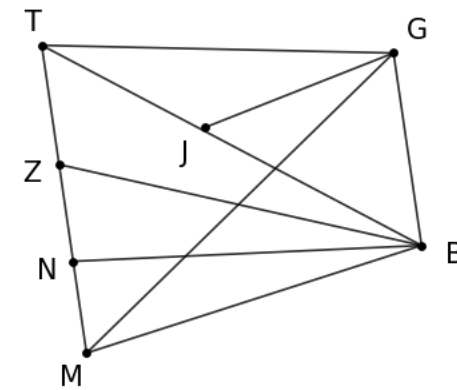
"Positions": {

"W": (0.738, 0.777), "C": (0.221, 0.738),  
"D": (0.260, 0.221), "Q": (0.777, 0.260),  
"E": (0.498, 0.500), "J": (0.750, 0.625),  
"K": (0.586, 0.766), "Y": (0.598, 0.613)

}

## Synthesis Diagram

Image:



Logic Forms:

"Points": ["B", "G", "T", "M", "J", "Z", "N"],

"Lines": ["BG", "GT", "TM", "MB", "GM", "GJ", "BT", "BZ", "BN"],

"Shapes": ["IsoscelesTrapezoid(B, G, T, M)"],

"Properties": [

"IsoscelesTrapezoid(B, G, T, M) with Parallel(Line(B, G),  
Line(M, T)), Equals(LengthOf(Line(G, T)), LengthOf(Line(B,  
M)))"

],

"Relations": [

"AngleBisector(Line(G, J), Angle(T, G, M))",  
"AngleTrisection(Angle(T, B, M), Angle(Z, B, T), Angle(Z, B,  
N), Angle(N, B, M))"

],

"Positions": {

"B": (0.777, 0.566),  
"G": (0.736, 0.285),  
"T": (0.221, 0.273),  
"M": (0.287, 0.725),  
"J": (0.459, 0.395),  
"Z": (0.246, 0.449),  
"N": (0.268, 0.590)

}