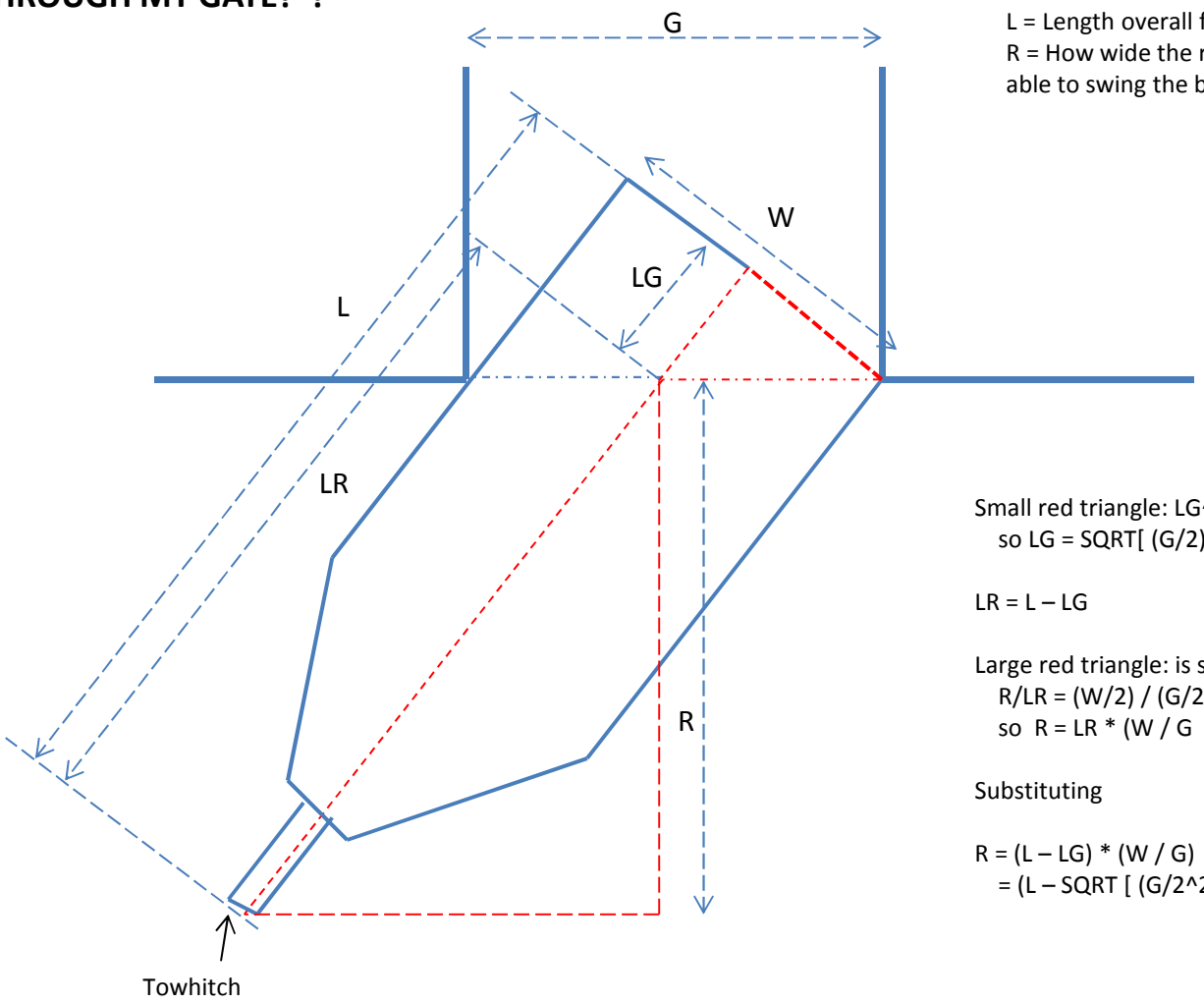
THE RIBNET SOLUTION TO "WILL MY BOAT FIT THROUGH MY GATE?"!

G = Width of gate
W = Width of boat
L = Length overall from back of boat to hitch
R = How wide the road needs to be to be able to swing the boat into the gate



Small red triangle: LG^2 + (W/2)^2 = (G/2)^2
so LG = SQRT[(G/2)^2 –(W/2)^2]

LR = L – LG

Large red triangle: is similar to small one, so
R/LR = (W/2) / (G/2) = W/G
so R = LR * (W / G

Substituting

R = (L – LG) * (W / G)
= (L – SQRT [(G/2^2 – (W/2)^2]) * (W/G)