\[ \sum F_z = 0 \]
\[ A + B + C - P = 0 \]
\[ \sum M_{x0} = 0 \]
\[ AR - Pe_y - BR/2 - CR/2 = 0 \]
\[ \sum M_{z0} = 0 \]
\[ Pe_x + CR\sqrt{3}/2 - BR\sqrt{3}/2 = 0 \]
solving for A, B, C

\[
A = \frac{P}{3R} \left[ R + 2e_y \right]
\]
\[
B = \frac{P}{3R} \left[ R - e_y + e_x \sqrt{3} \right]
\]
\[
C = \frac{P}{3R} \left[ R - e_y - e_x \sqrt{3} \right]
\]

Note: if \( e_x = e_y = 0 \) then \( A = B = C = \frac{P}{3} \)

If the table is homogeneous and has a weight \( W \) then

\[
A = \frac{W}{3} + \frac{P}{3R} \left[ R + 2e_y \right]
\]
\[
B = \frac{W}{3} + \frac{P}{3R} \left[ R - e_y + e_x \sqrt{3} \right]
\]
\[
C = \frac{W}{3} + \frac{P}{3R} \left[ R - e_y - e_x \sqrt{3} \right]
\]
\[ A = \frac{P}{3R} \left[ R + 2e_y \right] \]

If we have \( W=0 \) and set \( A=0 \) for tipping impending then

\[ e_y = \frac{-R}{2} \]

since this is independent of \( e_x \).

because of symmetry have similar regions between A-B and A-C
If the weight is nonzero then we need a larger distance to make $A = 0$

$$
e_y = -\frac{R}{2} \left( 1 + \frac{W}{P} \right)$$