

I need to use R codes to solve these inequalities to find the unknown values of a and b.

$$\left[\frac{\beta(a, b+10)}{\beta(a, b)} + 10 \frac{\beta(a+1, b+9)}{\beta(a, b)} \right] \leq 0.2$$

$$\leq \left[\frac{\beta(a, b+10)}{\beta(a, b)} + 10 \frac{\beta(a+1, b+9)}{\beta(a, b)} + 45 \frac{\beta(a+2, b+8)}{\beta(a, b)} \right]$$

And

$$\left[\frac{\beta(a, b+10)}{\beta(a, b)} + 10 \frac{\beta(a+1, b+9)}{\beta(a, b)} + 45 \frac{\beta(a+2, b+8)}{\beta(a, b)} + 120 \frac{\beta(a+3, b+7)}{\beta(a, b)} \right.$$

$$\left. + 210 \frac{\beta(a+4, b+6)}{\beta(a, b)} + 252 \frac{\beta(a+5, b+5)}{\beta(a, b)} \right] \leq 0.8$$

$$\leq \left[\frac{\beta(a, b+10)}{\beta(a, b)} + 10 \frac{\beta(a+1, b+9)}{\beta(a, b)} + 45 \frac{\beta(a+2, b+8)}{\beta(a, b)} \right.$$

$$\left. + 120 \frac{\beta(a+3, b+7)}{\beta(a, b)} + 210 \frac{\beta(a+4, b+6)}{\beta(a, b)} + 252 \frac{\beta(a+5, b+5)}{\beta(a, b)} \right.$$

$$\left. + 420 \frac{\beta(a+6, b+4)}{\beta(a, b)} \right]$$

Where $\beta(a, b)$ is beta function with unknown parameters; a and b.

Thank you