



Function for creating WBF VP Scales

The function is

$VP(\text{Winner}) = 10 + 10 * ((1 - \tau^{(3M/B)}) / (1 - \tau^3))$ with a maximum of 20

$VP(\text{loser}) = 20 - VP(\text{winner})$

where

$\tau = (5^{.5} - 1) / 2$ which is the "golden mean" and approximately 0.618...

M is the margin

$B = 15 * (\text{number of boards}^{.5})$

Both values are rounded to 2 decimals and truncated

Occasionally because of the rounding the rule $V(i+1) - V(i) \leq V(i) - V(i-1)$ will be violated. In that case the value of $V(i)$ is increased by .01. Usually this will eliminate all violations; sometimes it takes as many as four iterations of this procedure to eliminate all of them.

A VP score of 15-5 will be achieved when $M = B/3$ (five times the square root of the number of boards)

A margin of $2B/3$ will get a VP score of 18.09

A margin of B or greater will get a VP score of 20