Combine Precision and Recall: F-Measure

$$F_\beta = \cfrac{1}{\frac{\beta^2}{\beta^2+1}\frac{1}{R} + \frac{1}{\beta^2+1}\frac{1}{P}} = \frac{(\beta^2+1)P*R}{\beta^2 P + R}$$

$$F_1 = \frac{2PR}{P+R}$$

Why not 0.5*P+0.5*R?

P: precision
R: recall
β: parameter (often set to 1)