



Current wealth.

$$w_0 = 1$$

Current bet.

$$x_1 = 0$$

Outcome.

$$c_1 = -\nabla f(x_1) = 1$$

New wealth.

$$w_1 = w_0 + c_1 x_1 = 1$$

New betting fraction.

$$\beta_2 = \frac{\sum_{i=1}^1 c_i}{2} = 0.5$$

New bet.

$$x_2 = \beta_2 w_1 = 0.5.$$