

### Current wealth.

$$w_4 = 4.375$$

### Current bet.

$$x_5 = 3.5$$

#### Outcome.

$$c_5 = -\nabla f(x_5) = 1$$

#### New wealth.

$$w_5 = w_4 + c_5 x_5 = 7.875$$

# New betting fraction.

$$\beta_6 = \frac{\sum_{i=1}^5 c_i}{6} = 0.8\dot{3}$$

## New bet.

$$x_6 = \beta_6 w_5 = 6.5625$$