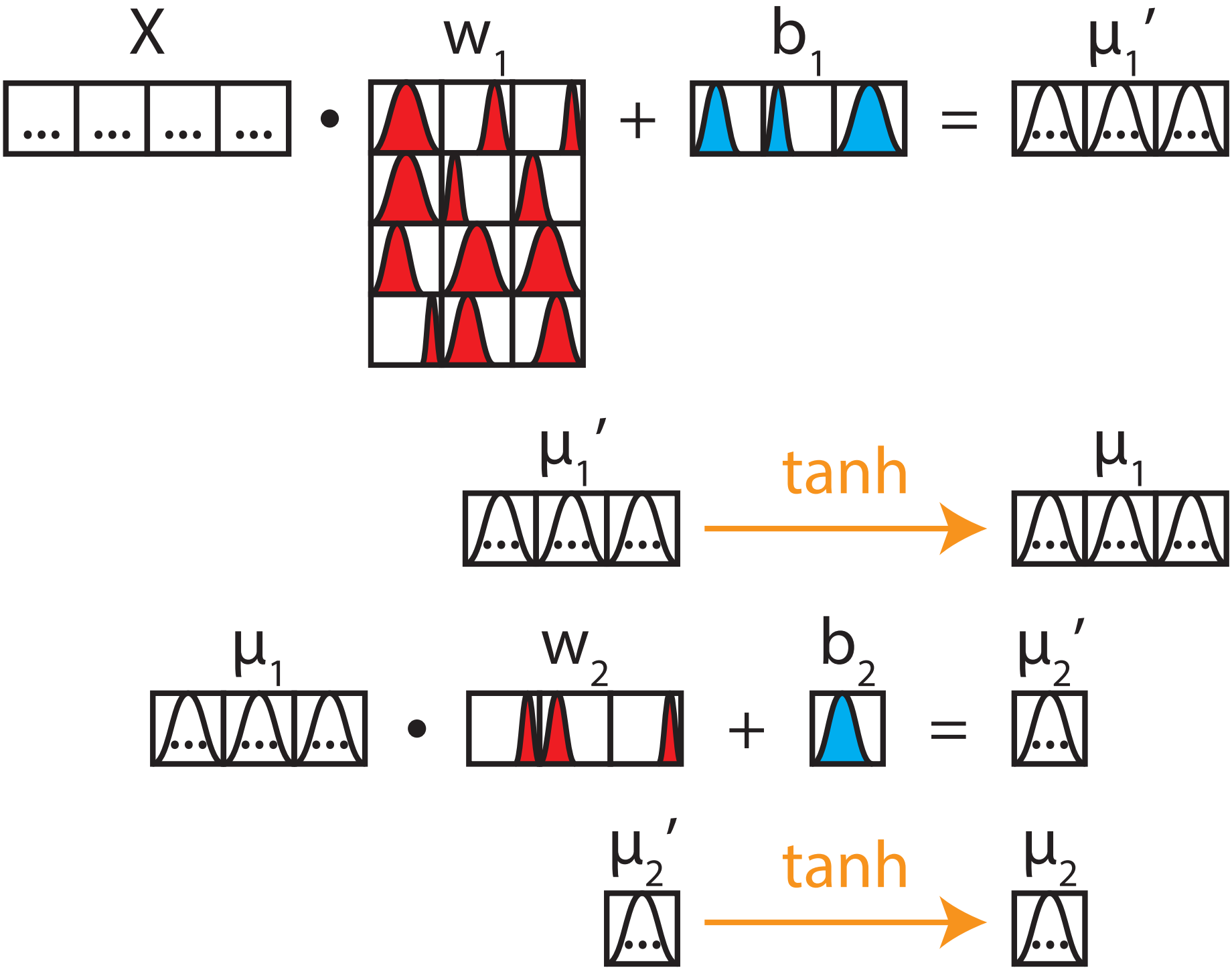

$Y \sim \text{Normal}(\mu_2, \sigma)$