



$\{X_t\}$  martingale wrt  $\{Y_t\}$   
 where  $X_t = f(Y_0, \dots, Y_t)$  if  
 $E(X_t | Y_0, \dots, Y_{t-1}) = X_{t-1}$

$X_0 = E(\max_{\substack{C \\ \frac{1}{3} \binom{p}{3}}} \text{clique in } G(n, p))$   
 $X_1 = E(C | e_1)$   
 $X_2 = E(C | e_1, e_2)$   
 $X_3 = E(C | e_1, e_2, e_3)$