Klausur 2016/17 Kl. 7

a)

	R	G	B	
M	0,1536	0,072	0,2544	0,48
W	0,1872	0,2496	0,0832	0,52
	0,3408	0,3216	0,3376	1

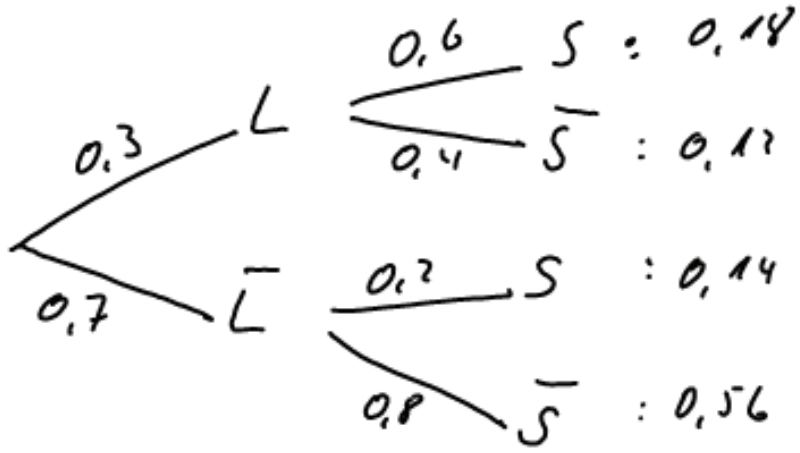
b) 1) $P(B) = P(M \cap B) + P(W \cap B) = 0{,}3376$

2) $P_G(W) = \frac{P(W \cap G)}{P(G)} = \frac{0{,}2496}{0{,}3216} = 0{,}7761$

c) $P(M \cap R) = P(M) \cdot P(R)$

$0{,}1536 = 0{,}48 \cdot 0{,}3408 = 0{,}162$ ↯ abhängig

a)



b)

	S	$\bar{S}$	
L	0,18	0,12	0,3
$\bar{L}$	0,14	0,56	0,7
	0,32	0,68	

c) $P(L \cap \bar{S}) = P(L) \cdot P(\bar{S})$

$0,12 = 0,3 \cdot 0,68 = 0,204$ ≠

d) $P_S(L) = \frac{P(S \cap L)}{P(S)} = \frac{0,18}{0,32} = 0,5625$

1) $n = 20$; $p = 1/6$; $q = 5/6$

a) $P(x=4) = \binom{20}{4} \cdot (1/6)^4 \cdot (5/6)^{16} = 0,2022$

b) $P(x=0) = \binom{20}{0} \cdot (1/6)^0 \cdot (5/6)^{20} = 0,0261$

c) $n = 5 \quad k = 2 \quad p = 3/20$

$P(x=2) = \binom{5}{2} \cdot (3/20)^2 \cdot (17/20)^3 = 0,1382$

d)

$P(x \leq 9) = 0,0213$

$P(x \leq 19) = 0,7803$