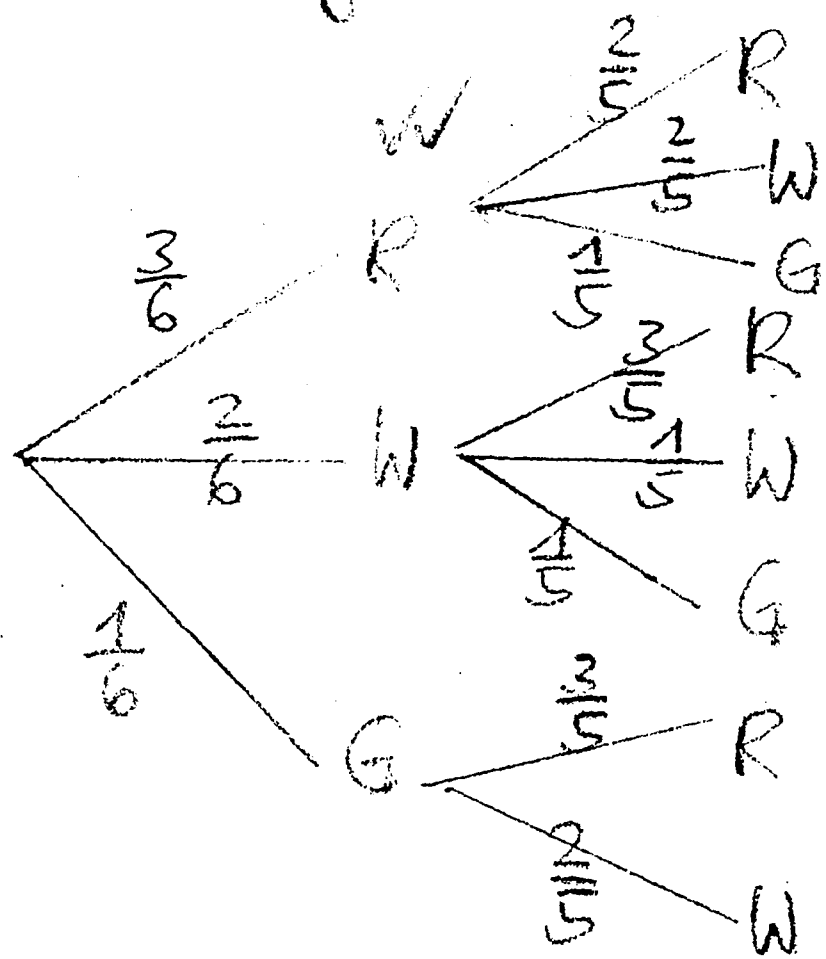


# Musterlösung A ✓

1) a)



RR  
RW  
RG  
WR  
WW  
WG  
  
GR  
GW

| A | B | C |
|---|---|---|
| x |   |   |
|   | x | x |
|   |   | x |
|   | x | x |
|   | x |   |
|   | x |   |
|   |   | x |
|   | x |   |

4

b)  $P(A) = \frac{1}{2} \cdot \frac{2}{5} = \frac{1}{5} \checkmark$

$P(B) = 1 - P(\{RR, RG, GR\}) = 1 - (\frac{1}{5} + \frac{1}{10} + \frac{1}{10}) = \frac{6}{10} \checkmark$

$P(C) = \frac{1}{2} \cdot \frac{2}{5} + \frac{1}{2} \cdot \frac{1}{5} + \frac{1}{3} \cdot \frac{3}{5} + \frac{1}{6} \cdot \frac{3}{5} = \frac{2+1+2+1}{10} = \frac{6}{10} \checkmark$

c)  $\overline{B \cup C} = \overline{B} \cap \overline{C} = \{WW, WG, GW\} \checkmark$

2) a)

|                | A  | $\overline{A}$ |     |
|----------------|----|----------------|-----|
| R              | 30 | 24             | 54  |
| $\overline{R}$ | 31 | 15             | 46  |
|                | 61 | 39             | 100 |

✓✓

4

$h(E) = 1 - 0,15 \checkmark = 0,85 \checkmark$

b)  $P(A \cap R) = P(A) \cdot P(R)$

$0,3 = 0,61 \cdot 0,54 \checkmark$

$0,3 \neq 0,3294 \Rightarrow \text{stoch. abh.} \checkmark$

2