

- ① a)  $\{(1,2), (2,1), (1,5), (2,4), (3,3), (4,2), (5,1), (3,4), (4,5), (5,4), (4,3), (4,4)\}$

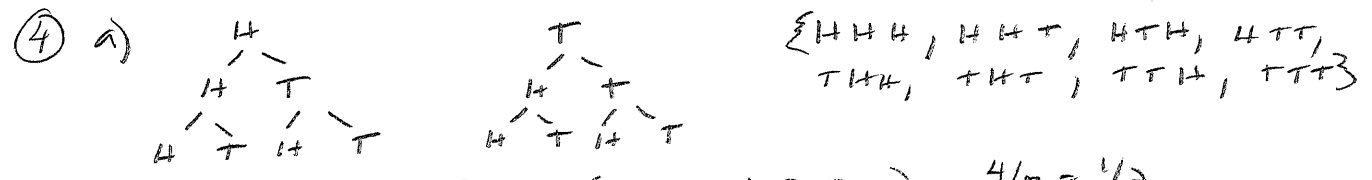
b)  $\frac{12}{36} = \frac{1}{3}$

- ② a)  $\{(1,1), (2,2), (3,3), (4,4), (5,5), (4,4), (2,6), (6,2), (3,5), (5,3), (4,5), (5,4), (4,5), (5,4), (4,4), (4,4), (3,4), (4,3)\}$

b)  $\frac{18}{36} = \frac{1}{2}$

- ③ a)  $\{(1,2), (2,1), (3,4), (4,5), (5,4), (6,3)\}$

b)  $\frac{6}{36} = \frac{1}{6}$



b)  $P(2 \text{ tails}) = 3/8$  c)  $P(\text{at least 2 tails}) = 4/8 = 1/2$

d)  $P(3 \text{ tails}) = 1/8 = P(0 \text{ tails}) = 1/8$  TRUE

⑦ TRUE - Complimentary events never intersect, so they are mutually exclusive.

⑧ Not E is the complement of E, which is entire sample space.  $P(E) + P(\text{not } E) = 1$

⑨  $P(\text{not left-handed}) = 90\%$

⑩ a)  $P(T \text{ or } Th) = P(T) + P(Th) = 0.35 + 0.25 = 0.60$

b)  $P(\text{not } T) = 1 - P(T) = 1 - 0.35 = 0.65$

c)  $P(\text{not } T \text{ or } Th) = 1 - P(T \text{ or } Th) = 1 - 0.60 = 0.40$

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b) O:  $\frac{7}{45}$  A:  $\frac{6}{40}$

B:  $\frac{2}{11}$  AB:  $\frac{1}{4}$

c) AB

⑬ No,  $P(A \cap B) = 0.05 \neq 0$

⑭ a)  $P(A \cap B) = 0.05$

b)  $P(A) = 0.45$

c)  $P(A \cup B) = 0.75$

d)  $P(\text{not } B) = 0.65$