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INTRODUKTION TIL STATISTIK OG SANDSYNLIGHEDSTEORI

Kristopher B.E. Märcher, studienummer: 202205825

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Opgave 1

a,b,c: Billeder på messenger med dig selv D: nej, er ikke disjoint

opgave 2 a: [2,8] b: [6,7) c:$(-\infty,0)\cup(1,\infty)$ d: [7,8]

opgave 3 a

$$A \cup B - (A \cap B)$$

b

$$B - C$$

c

$$A \cap B \cup (A \cap C)$$

d

$$((C - A) - B) \cap A \cup B$$

Opgave 4 a

$$(H,T),(H,H)$$

b

$$(H,T),(T,H)(T,T)$$

c

$$(H,T),(T,H)$$

opgave 6

$$10 + 20 + 15 = 45$$

opgave 13 a

$$P(A) = 0.5$$

$$P(D) = 0.25$$

$$1 - P(D \cup A) = 0.25$$

b

$$1 - P(B \cup D) = 0.5$$

opgave 15 a

$$\frac{|\{4\}|}{|S|} = \frac{1}{6}$$

b

$$\frac{|\{(1,6),(3,4),(2,5),(6,1)(5,2),(4,3)\}|}{|SxS|} = \frac{6}{36} = 0.16666$$

c

$$\frac{|\{1,3,4,5,6\}|x|\{4,5,6\}|}{|SxS|} = \frac{15}{36} = 0.416$$

opgave 17

$$P(A) = P(B) = x$$

$$P(C) = P(D) \cdot 2$$

$$P(A) \cup P(C) = 0.6$$

$$(P(A) \cup P(C))^c = 0.4$$

$$(P(B) \cup P(D))^c = 0.4$$

$$P(A) \cup (P(D) * 2) = 0.6$$

P(A)=P(B)

$$P(A) \cap P(D) = 0.4$$

$$P(A) \cap (P(D) * 2) = 0.6$$

$$P(A) = P(B) = P(D) = 0.2$$

$$P(C) = 0.4$$

opgave 18

a

$$\frac{1}{16}1^2 = 0.0625$$

b

$$\frac{1}{16}2^2 = 0.25$$

Therefore the answer is 0.75 c

$$0.5$$

opgave 5 a

$$50 + 33 + 25 + 20 = 128$$

b

$$50 + 33 + 20 - 16 - 10 - 6 + 3 = 74$$