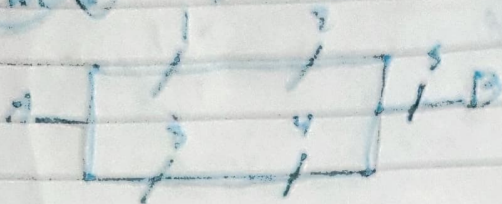


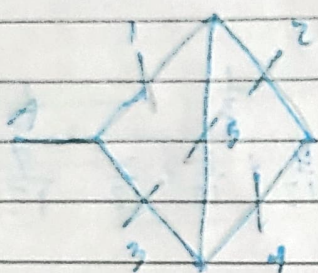
2.66 a)

$$P = \frac{1}{3}$$



$$P(AB) = P(\text{cima u baixo}) = \frac{1}{77} + \frac{1}{77} - \frac{1}{292} = \frac{53}{729}$$

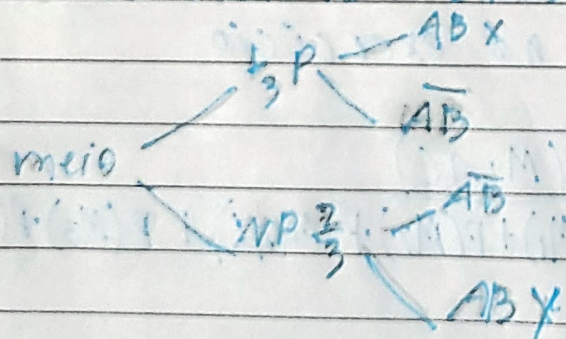
b)



$$B = \left( \frac{1}{3} + \frac{1}{3} - \frac{1}{9} \right)^2 = \frac{2}{3} - \frac{1}{9} = \frac{6}{9} - \frac{1}{9} = \frac{5}{9}$$

$$= \frac{25}{81} = x$$

$$P(AB) = P(\text{cima u baixo u meio})$$



$$P(AB) = \frac{x}{3} + \frac{2y}{3} = \frac{25}{81} \cdot \frac{1}{3} + \frac{17}{81} \cdot \frac{2}{3} = 0,2927$$