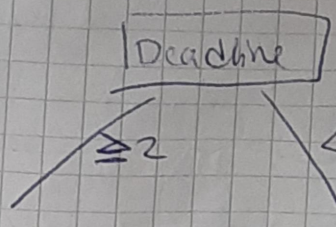

$S_1 = (ja, ja, nein, ja, ja, ja)$ $|S_1| = 6$

$S_2 = (ja, nein, ja, nein, ja)$ $|S_2| = 5$

≥2

$H(S_1) = -\frac{5}{6}\log_2\left(\frac{5}{6}\right) - \frac{1}{6}\log_2\left(\frac{1}{6}\right) \approx 0{,}65002$

$H(S_2) = -\frac{3}{5}\log_2\left(\frac{3}{5}\right) - \frac{2}{5}\log_2\left(\frac{2}{5}\right) \approx 0{,}97095$

$G(S_1, \text{wissen}) = H(S_1) - \frac{|S_{1\,gut}|}{|S_1|} H(S_{1\,gut}) - \frac{|S_{1\,mittel}|}{|S_1|} H(S_{1\,mittel}) - \frac{|S_{1\,schlecht}|}{|S_1|} H(S_{1\,schlecht})$

$|S_{1\,gut}| = 2$
$|S_{1\,mittel}| = 1$
$|S_{1\,schlecht}| = 3$

$= 0{,}65002 - \frac{2}{6}\underbrace{\left(-\frac{2}{2}\log_2\left(\frac{2}{2}\right) - \frac{0}{2}\ldots\right)}_{H(S_{1\,gut})=0} - \frac{1}{6}\underbrace{\left(-\frac{1}{1}\log_2\left(\frac{1}{1}\right) - \frac{0}{1}\ldots\right)}_{H(S_{1\,mittel})=0} - \frac{3}{6}\underbrace{\left(-\frac{3}{3}\log_2\left(\frac{3}{3}\right) - \frac{0}{3}\ldots\right)}_{H(S_{1\,schlecht})=0}$

$\approx 0{,}65002$

$G(S_1, \text{Zeit}) = H(S_1) - \frac{|S_{1\,geht}|}{|S_1|} H(S_{1\,geht}) - \frac{|S_{1\,keine}|}{|S_1|} H(S_{1\,keine})$

$|S_{1\,geht}| = 4$
$|S_{1\,keine}| = 2$

$= 0{,}65002 - \frac{4}{6}\underbrace{\left(-\frac{4}{4}\log_2\left(\frac{4}{4}\right) - \frac{0}{4}\ldots\right)}_{H(S_{1\,geht})=0} - \frac{2}{6}\underbrace{\left(-\frac{1}{2}\log_2\left(\frac{1}{2}\right) - \frac{1}{2}\log_2\left(\frac{1}{2}\right)\right)}_{H(S_{1\,keine})=1}$

$\approx 0{,}31669$

$G(S_1, \text{Rolle}) = H(S_1) - \frac{|S_{1\,NT}|}{|S_1|} H(S_{1\,NT}) - \frac{|S_{1\,wahl}|}{|S|} H(S_{1\,wahl})$

$|S_{1\,NT}| = 3$
$|S_{1\,wahl}| = 3$

$= 0{,}65002 - \frac{3}{6}\underbrace{\left(-\frac{3}{3}\log_2\left(\frac{3}{3}\right) - \frac{0}{3}\ldots\right)}_{H(S_{1\,NT})=0} - \frac{3}{6}\underbrace{\left(-\frac{2}{3}\log_2\left(\frac{2}{3}\right) - \frac{1}{3}\log_2\left(\frac{1}{3}\right)\right)}_{H(S_{1\,wahl})}$

$\approx 0{,}19037$

<2

$G(S_2, \text{wissen}) = H(S_2) - \frac{|S_{2\,gut}|}{|S_2|} H(S_{2\,gut}) - \frac{|S_{2\,mittel}|}{|S_2|} H(S_{2\,mittel}) - \frac{|S_{2\,schlecht}|}{|S_2|} H(S_{2\,schlecht})$

$|S_{2\,gut}| = 3$
$|S_{2\,mittel}| = 1$
$|S_{2\,schlecht}| = 1$

$= 0{,}97095 - \frac{3}{5}\underbrace{\left(-\frac{2}{3}\log_2\left(\frac{2}{3}\right) - \frac{1}{3}\log_2\left(\frac{1}{3}\right)\right)}_{H(S_{2\,gut})} - \frac{1}{5}\underbrace{\left(-\frac{1}{1}\log_2\left(\frac{1}{1}\right) - \frac{0}{1}\ldots\right)}_{H(S_{2\,mittel})=0} - \frac{1}{5}\underbrace{\left(-\frac{1}{1}\log_2\left(\frac{1}{1}\right) - \frac{0}{1}\ldots\right)}_{H(S_{2\,schlecht})=0}$

$\approx 0{,}41997$

$G(S_2, \text{Zeit}) = H(S_2) - \frac{|S_{2\,geht}|}{|S_2|} H(S_{2\,geht}) - \frac{|S_{2\,keine}|}{|S_2|} H(S_{2\,keine})$

$|S_{2\,geht}| = 3$
$|S_{2\,keine}| = 2$

$= 0{,}97095 - \frac{3}{5}\underbrace{\left(-\frac{2}{3}\log_2\left(\frac{2}{3}\right) - \frac{1}{3}\log_2\left(\frac{1}{3}\right)\right)}_{H(S_{2\,geht})} - \frac{2}{5}\underbrace{\left(-\frac{1}{2}\log_2\left(\frac{1}{2}\right) - \frac{1}{2}\log_2\left(\frac{1}{2}\right)\right)}_{H(S_{2\,keine})=1} \approx 0{,}01997$