Erinson Borrayo

$P(00) = 6/14$.
$P(01) = 1/14$
$P(10) = 1/7$.
$P(11) = 5/14$.

$I(0|00) = \log(1/0.7)$

$I(0|01) = \log(1/0.6)$

$I(0|10) = \log(1/0.5)$

$I(0|11) = \log(1/0.2)$

$I(1|00) = \log(1/0.3)$

$I(1|01) = \log(1/0.4)$

$I(1|10) = \log(1/0.5)$.

$I(1|11) = \log(1/0.8)$.

$H(S|00) = 0.7 \log\left(\frac{1}{0.7}\right) + 0.3 \log\left(\frac{1}{0.3}\right)$

$H(S|01) = 0.6 \log\left(\frac{1}{0.6}\right) + 0.4 \log\left(\frac{1}{0.4}\right)$

$H(S|10) = 0.5 \log\left(\frac{1}{0.5}\right) + 0.5 \log\left(\frac{1}{0.5}\right)$.

$H(S|11) = 0.2 \log\left(\frac{1}{0.2}\right) + 0.8 \log\left(\frac{1}{0.8}\right)$.

$H(S) = P(00)[H(S|00)] + P(01)[H(S|01)] + P(10)[H(S|10)] +$

$P(11)[H(S|11)]$

Erivson Bezerra

$$H(S) = \frac{6}{14}\left[0.7\log\left(\frac{1}{0.7}\right) + 0.3\log\left(\frac{1}{0.3}\right)\right] +$$

$$\frac{1}{14}\left[0.6\log\left(\frac{1}{0.6}\right) + 0.4\log\left(\frac{1}{0.4}\right)\right] +$$

$$\frac{1}{7}\left[0.5\log\left(\frac{1}{0.5}\right) + 0.5\log\left(\frac{1}{0.5}\right)\right] +$$

$$\frac{5}{14}\left[0.2\log\left(\frac{1}{0.2}\right) + 0.8\log\left(\frac{1}{0.8}\right)\right]$$

$$H(S) = 0.8477$$