

$$11 / 60 = 0.18333333333333333333333333333333$$

$$37 / 60 = 0.61666666666666666666666666666667$$

$$12 / 60 = 0.2$$

$$\log(11/60) = -2.4474589769712212731246953267114$$

$$\log(37/60) = -0.69743722997956874746625419582403$$

$$\log(12/60) = -2.3219280948873623478703194294894$$

$$E(S) = -11/60 * \log(11/60) - 37/60 * \log(37/60) - 12/60 * \log(12/60)$$

$$\mathbf{E(S) = 1.3431727232429304305844481165531}$$

LIVES

$$\geq 9 - (\text{up } 0, \text{ same } 0, \text{ down } 8)$$

$$E(S1) = 0/8 * \log(0/8) + 0/8 * \log(0/8) + 8/8 * \log(8/8) = 0$$

$$[1, 3] - (\text{up } 0, \text{ same } 14, \text{ down } 0)$$

$$E(S2) = 0/14 * \log(0/14) + 14/14 * \log(14/14) + 0/14 * \log(0/14) = 0$$

$$[4, 8] - (\text{up } 11, \text{ same } 23, \text{ down } 4)$$

$$E(S3) = 11/38 * \log(11/38) + 23/38 * \log(23/38) + 4/38 * \log(4/38)$$

$$11 / 38 = 0.28947368421052631578947368421053$$

$$23 / 38 = 0.60526315789473684210526315789474$$

$$4 / 38 = 0.10526315789473684210526315789474$$

$$\log(11/38) = -1.788495894806288237594156376181$$

$$\log(23/38) = -0.72436555738657262149937117874417$$

$$\log(4/38) = -3.2479275134435854937935194229068$$

$$E(S3) = 1.2980413872772284969261930247562$$

$$\mathbf{Gain(lives) = 0.52107984463401904919785920087417}$$

GOLD

$$< 60 - (\text{up } 0, \text{ same } 9, \text{ down } 5)$$

$$E(S1) = 9/14 * \log(9/14) + 5/14 * \log(5/14) = 0.94028595867063103561919087876699$$

$$9 / 14 = 0.64285714285714285714285714285714$$

$$5 / 14 = 0.35714285714285714285714285714286$$

$$\log(9/14) = -0.6374299206152917445344914293362$$

$$\log(5/14) = -1.4854268271702417595716498877424$$

[60, 180) – (up 9, same 24, down 7)

$$E(S2) = 9/40 * \log(9/40) + 24/40 * \log(24/40) + 7/40 * \log(7/40) = 1.3664303577700676385415489078286$$

$$9 / 40 = 0.225$$

$$24 / 40 = 0.6$$

$$7 / 40 = 0.175$$

$$\log(9/40) = -2.1520030934450499849628415415938$$

$$\log(24/40) = -0.73696559416620616641658048554157$$

$$\log(7/40) = -2.5145731728297582404283501122576$$

>= 180 (up 2, same 4)

$$E(S3) = 2/6 * \log(2/6) + 4/6 * \log(4/6) = 0.91829583405448951478707227728114$$

$$2 / 6 = 0.33333333333333333333333333333333$$

$$4 / 6 = 0.66666666666666666666666666666667$$

$$\log(2/6) = -1.5849625007211561814537389439478$$

$$\log(4/6) = -0.58496250072115618145373894394782$$

$$\text{Gain(gold)} = 0.12098951096762247843356374522696$$

TECH

< 1.33 (up 5, same 13, down 6)

$$E(S1) = 5/24 * \log(5/24) + 13/24 * \log(13/24) + 6/24 * \log(6/24) = 1.4505820084462417267357141390949$$

$$5 / 24 = 0.20833333333333333333333333333333$$

$$13 / 24 = 0.54166666666666666666666666666667$$

$$6 / 24 = 0.25$$

$$\log(5/24) = -2.2630344058337938335834195144584$$

$$\log(13/24) = -0.88452278258006402105692628969112$$

$$\log(6/24) = -2$$

[1.33, 2) – (up 5, same 15, down 5)

$$E(S2) = 5/25 * \log(5/25) + 15/25 * \log(15/25) + 5/25 * \log(5/25) = 1.3709505944546686389980760631207$$

$$5 / 25 = 0.2$$

$$15 / 25 = 0.6$$

$$\log(5/25) = -2.3219280948873623478703194294894$$

$$\log(15/25) = -0.73696559416620616641658048554157$$

>= 2 – (up 1, same 9, down 1)

$$E(S3) = 1/11 * \log(1/11) + 9/11 * \log(9/11) + 1/11 * \log(1/11) = 0.86585661745722350472960841117482$$

$$1 / 11 = 0.09090909090909090909090909090909$$

$$9 / 11 = 0.81818181818181818181818181818182$$

$$\log(1/11) = -3.4594316186372972561993630467258$$

$$\log(9/11) = -0.28950661719498489329188515883016$$

$$\text{Gain(tech)} = 0.03297012564116416444053589256613$$

Alegem atributul LIVES

$$\text{E(S)} = 1.2980413872772284969261930247562$$

38 – (up 11, same 23, down 4)

GOLD

< 60 – (up 0, same 3, down 3)

$$E(S1) = 3/6 * \log(3/6) + 3/6 * \log(3/6) = 1$$

[60, 180) – (up 9, same 17, down 1)

$$E(S2) = 9/27 * \log(9/27) + 17/27 * \log(17/27) + 1/27 * \log(1/27) = 1.1246581201547062774543122698124$$

$$9 / 27 = 0.33333333333333333333333333333333$$

$$17 / 27 = 0.62962962962962962962962962963$$

$$1 / 27 = 0.03703703703703703703703703703704$$

$$\log(9/27) = -1.5849625007211561814537389439478$$

$$\log(17/27) = -0.66742466091312913610715082103305$$

$$\log(1/27) = -4.7548875021634685443612168318434$$

$$\geq 180 - (\text{up } 2, \text{ same } 3, \text{ down } 0)$$

$$E(S3) = 2/5 * \log(2/5) + 3/5 * \log(3/5) = 0.9709505944546686389980760631207$$

$$2 / 5 = 0.4$$

$$3 / 5 = 0.6$$

$$\log(2/5) = -1.3219280948873623478703194294894$$

$$\log(3/5) = -0.73696559416620616641658048554157$$

$$\text{Gain(gold)} = 0.21329080263379658412996114053151$$

TECH

$$< 1.33 - (\text{up } 5, \text{ same } 7, \text{ down } 0)$$

$$E(S1) = 5/12 * \log(5/12) + 7/12 * \log(7/12) = 0.97986875665115280716662374660867$$

$$[1.33, 2) - (\text{up } 5, \text{ same } 10, \text{ down } 4)$$

$$E(S2) = 5/19 * \log(5/19) + 10/19 * \log(10/19) + 4/19 * \log(4/19) = 1.4674579648482994296853725048889$$

$$5 / 19 = 0.26315789473684210526315789473684$$

$$10 / 19 = 0.52631578947368421052631578947368$$

$$4 / 19 = 0.21052631578947368421052631578947$$

$$\log(5/19) = -1.9259994185562231459231999934174$$

$$\log(10/19) = -0.92599941855622314592319999341744$$

$$\log(4/19) = -2.2479275134435854937935194229068$$

$$\geq 2 - (\text{up } 1, \text{ same } 6, \text{ down } 0)$$

$$E(S3) = 1/7 * \log(1/7) + 6/7 * \log(6/7) = 0.59167277858232738048162165099085$$

$$\text{Gain(tech)} = 0.14588781196123337815269528504228$$

Alegem atributul GOLD