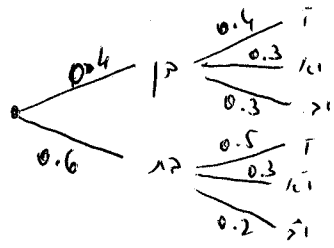


35
(544)



$$P(P | i1) = \frac{P(P \cap i1)}{P(i1)} = \frac{0.4 \cdot 0.3}{0.4 \cdot 0.3 + 0.6 \cdot 0.3} = \frac{0.12}{0.3} = \frac{2}{5} = 0.4$$

38
(545)

$$1 = P(\text{success}) + P(\text{failure}) = 4P(\text{success}) + P(\text{failure})$$

$$1 = 5P(\text{success})$$

$$P(\text{success}) = 0.2$$

$$P(\text{failure}) = 0.8$$

$$P(\text{success}) = P(\binom{3}{3}) + P(\binom{4}{4}) + P(\binom{5}{5}) = \binom{5}{3} 0.2^3 0.8^2 + \binom{5}{4} 0.2^4 0.8^1 + \binom{5}{5} 0.2^5 0.8^0 = 0.05792$$

$$P(\text{success} | \text{success}) = \frac{P(\binom{4}{4} \cap \binom{3}{3})}{P(\binom{3}{3})} = \frac{P(\binom{4}{4})}{0.05792}$$

$$= \frac{P(\binom{4}{4}) + P(\binom{5}{5})}{0.05792} = \frac{\binom{5}{4} 0.2^4 \cdot 0.8 + \binom{5}{5} 0.2^5 \cdot 0.8^0}{0.05792} = 0.0116$$

4
(548)

	תוצר	רווח	
1-X	0.75-X	0.25	מאבד
X	X-0.2	0.2	רווח
	0.55	0.45	

$$P(\text{win} \cap \text{win}) = \frac{5}{9} \cdot 0.45 = 0.25$$

נסתחן X - ארבעה הופעות של מאבד

$$P(\text{win} \cap \overline{\text{win}}) = \frac{4}{7} P(\overline{\text{win}})$$

$$0.2 = \frac{4}{7} X \Rightarrow X = 0.35$$

$$P(\text{win} \cap \overline{\text{win}}) = 0.75 - X = 0.75 - 0.35 = 0.4$$

	תוצר	רווח	
Y	0.1	1.0 - Y	מאבד
1-Y	0.15	Y - 0.8	רווח
	0.25	0.75	

$$3X - 0.8 = 1 - X$$

$$4X = 1.8$$

$$X = 0.45$$

$$P(\text{win} | \text{win}) = \frac{P(\text{win} \cap \text{win})}{P(\text{win})} = \frac{0.1}{0.25} = \frac{2}{5}$$

$$P(Y) = 0.6$$

$$0.85 - 0.6 = 0.25$$