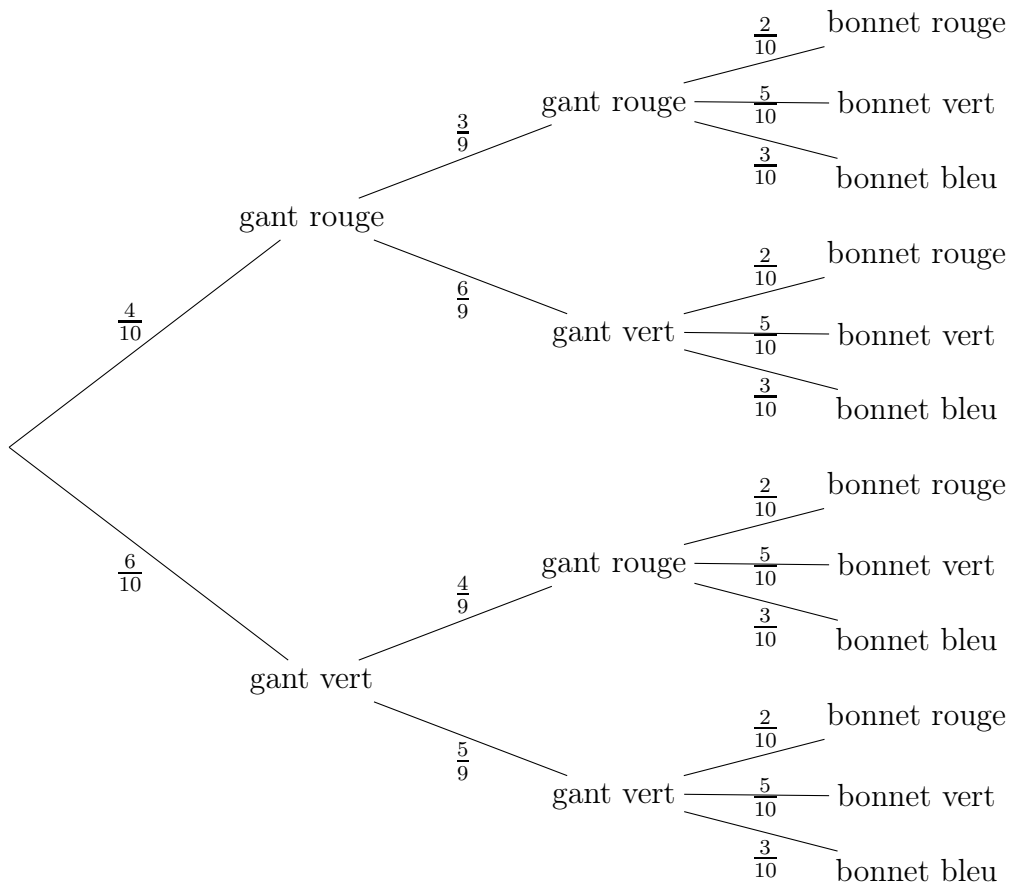


Chamblandes 2009 — Problème 7



a) $\frac{4}{10} \cdot \frac{3}{9} \cdot \frac{2}{10} = \frac{2}{75}$

b) $\frac{4}{10} \cdot \frac{3}{9} \cdot \frac{2}{10} + \frac{6}{10} \cdot \frac{5}{9} \cdot \frac{5}{10} = \frac{2}{75} + \frac{1}{6} = \frac{29}{150}$

c) $\frac{6}{10} \cdot \frac{5}{9} \cdot \left(\frac{5}{10} + \frac{3}{10} \right) = \frac{6}{10} \cdot \frac{5}{9} \cdot \frac{8}{10} = \frac{4}{15}$

d) $\frac{\frac{4}{10} \cdot \frac{3}{9} \cdot \frac{2}{10}}{\frac{4}{10} \cdot \frac{3}{9} \cdot \frac{2}{10} + \frac{6}{10} \cdot \frac{5}{9} \cdot \frac{5}{10}} = \frac{\frac{2}{75}}{\frac{2}{75} + \frac{1}{6}} = \frac{\frac{4}{150}}{\frac{29}{150}} = \frac{4}{29}$

e) $\left(\frac{4}{15} \right)^5 = \frac{1024}{759375}$