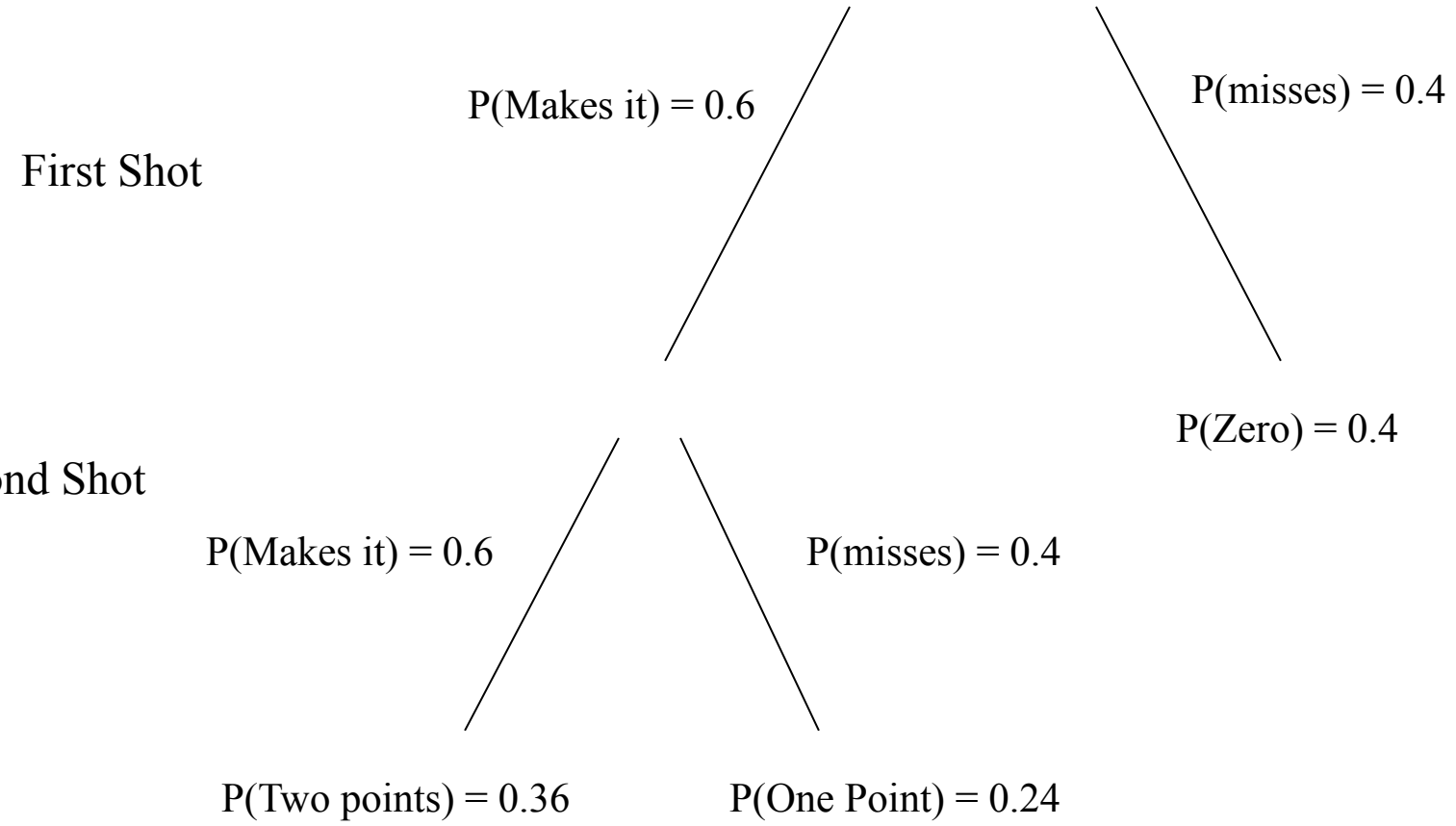
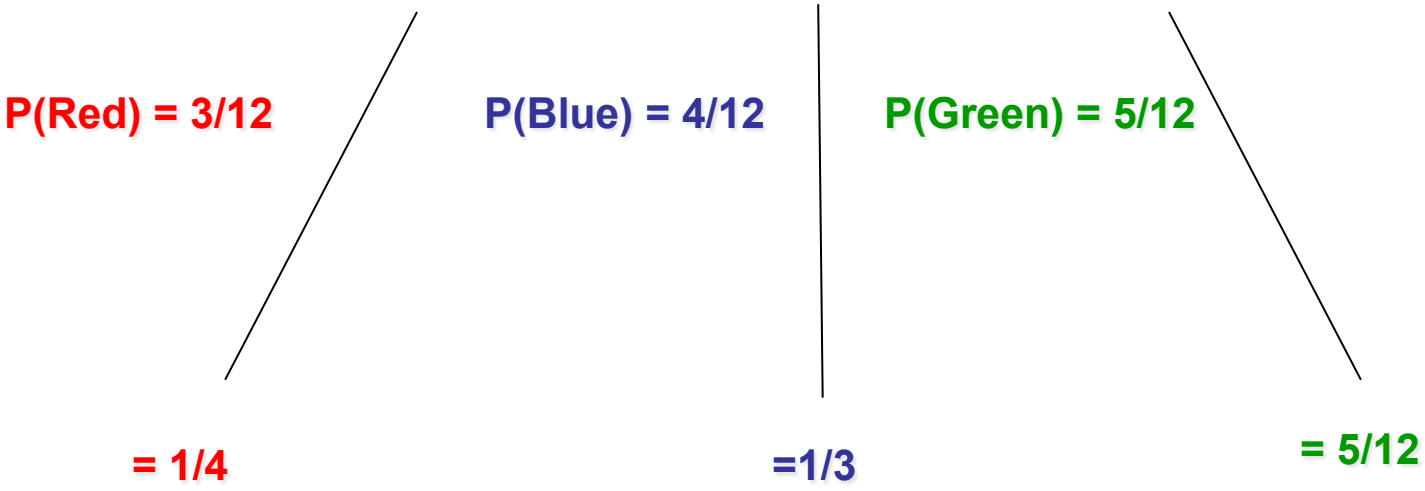
Tree Diagrams

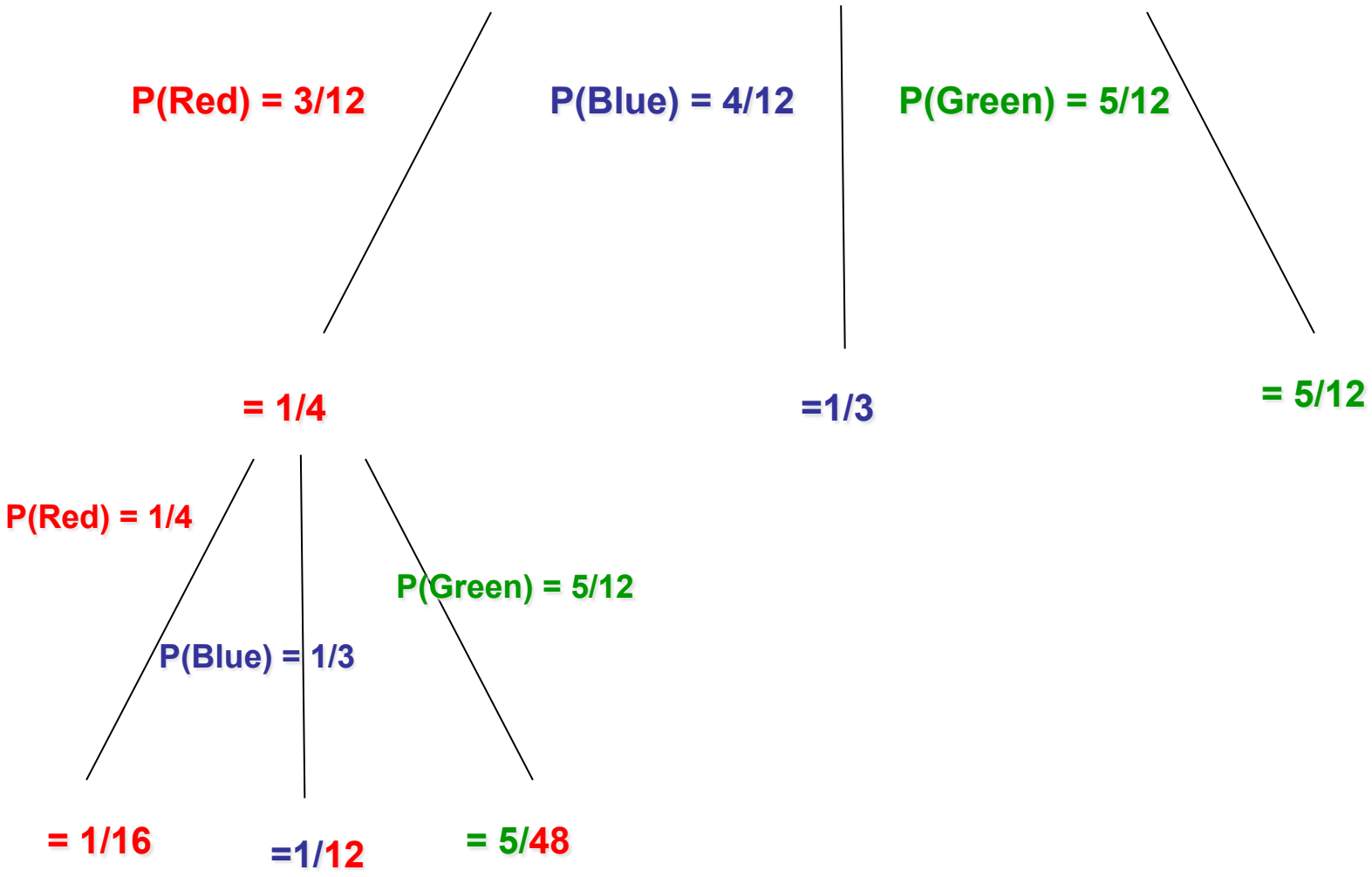
Let's revisit the one and one situation: A player with a free throw percentage of 60% (Cough cough Jaren cough cough) goes to the line for a one and one. If he makes the first shot, he gets a second. If he misses the first shot, the ball is live. What is the most likely outcome: Zero, One point, or Two points.

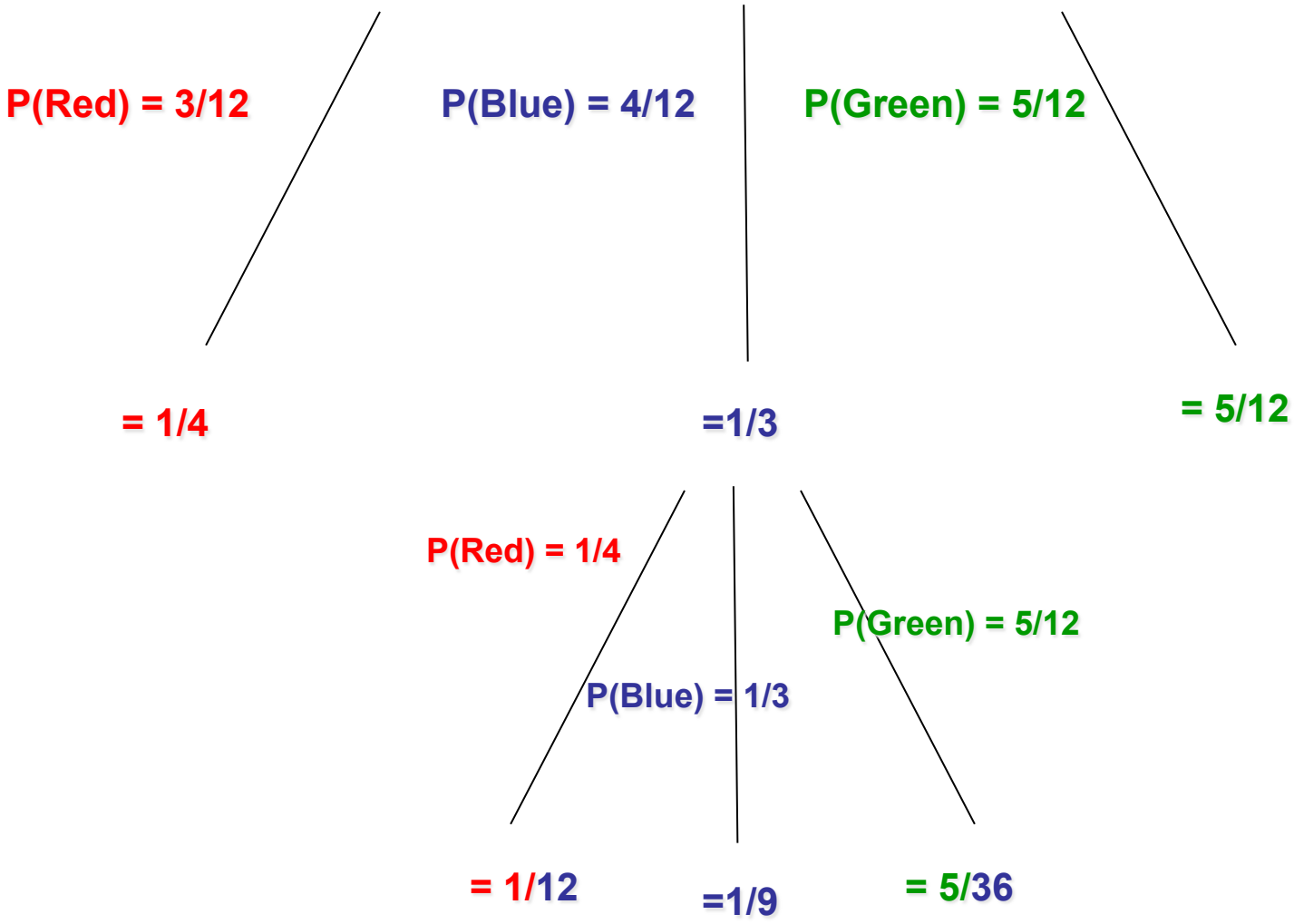
To do this, make a tree diagram:

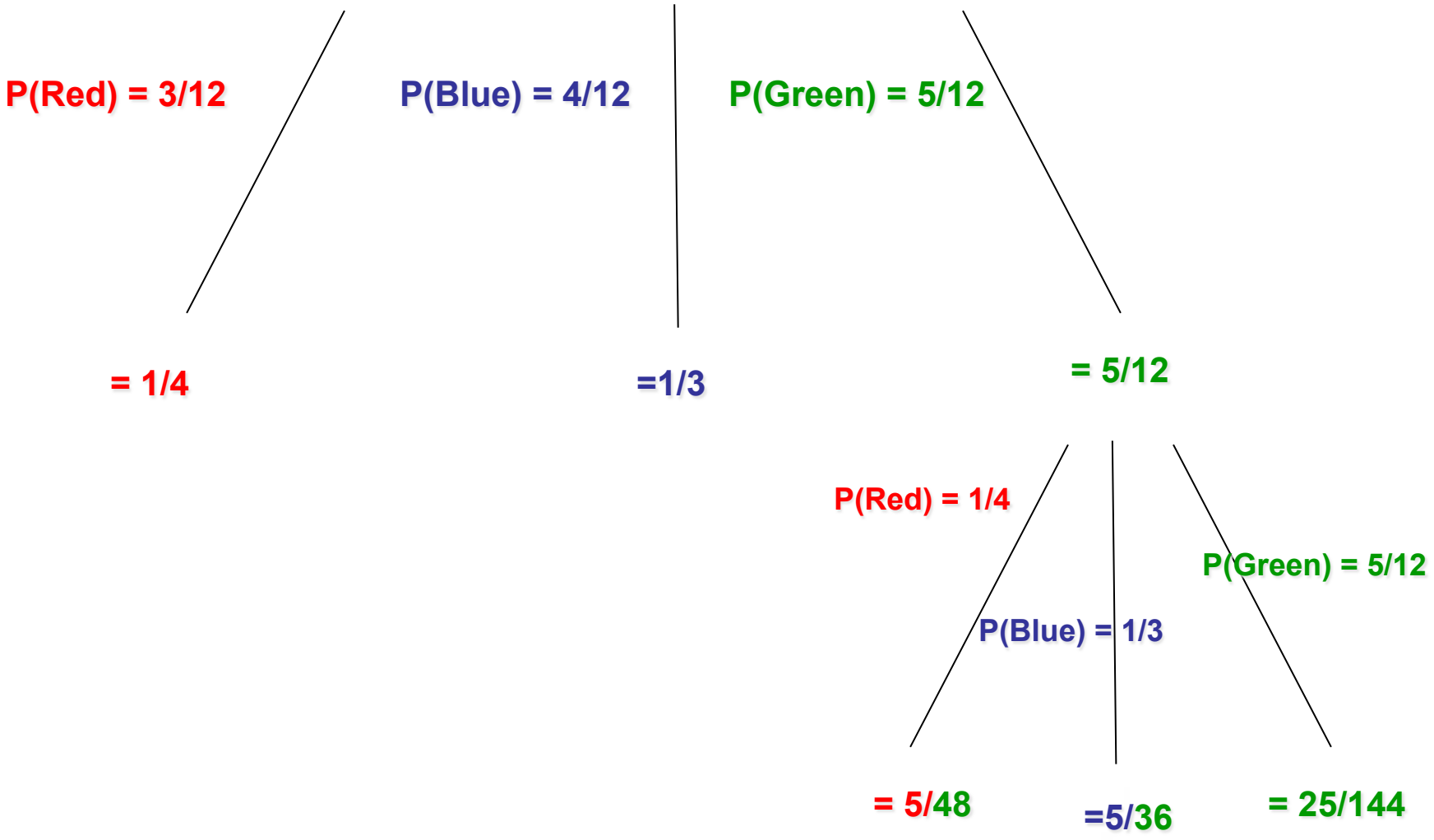


A jar has 3 red marbles, 4 blue marbles, and 5 green marbles. If you draw two marbles with replacement(meaning you put the first one back after drawing it), find all possible outcomes using a tree diagram.

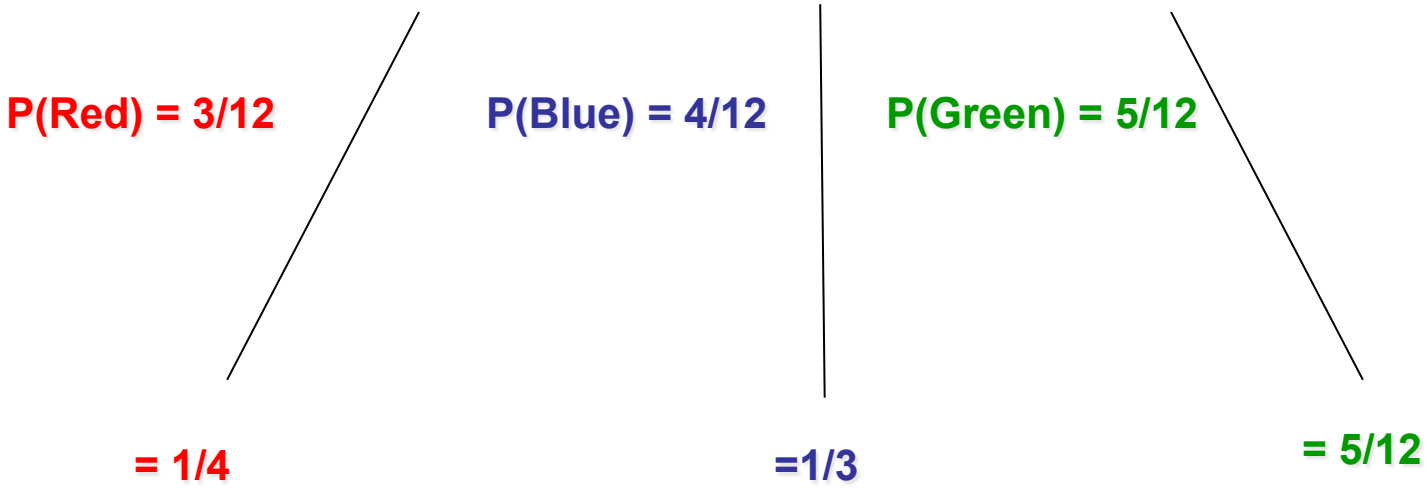


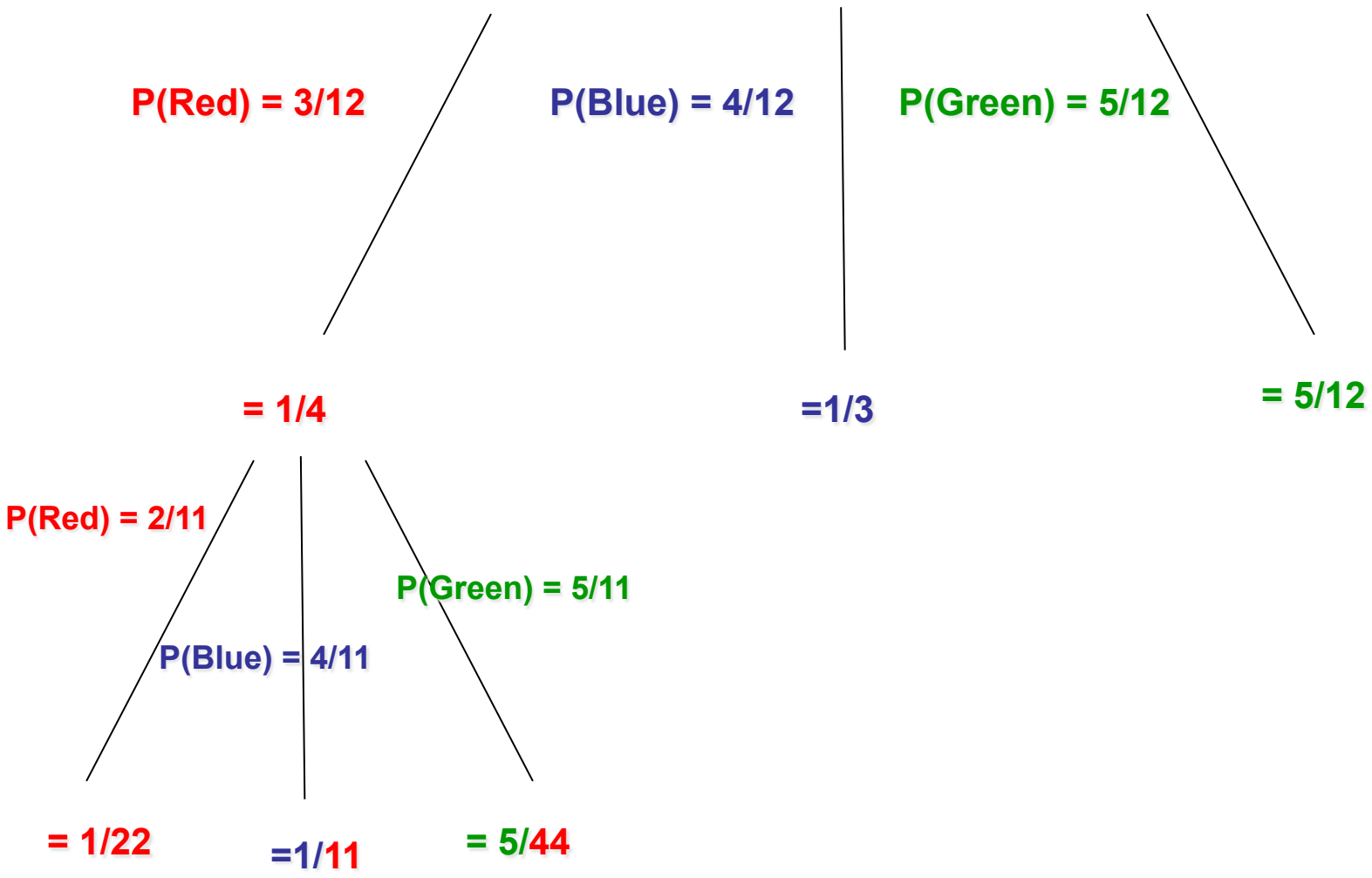

P(Red) = 3/12
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 1/4
P(Green) = 5/12
P(Blue) = 1/3
= 1/16
=1/12
= 5/48


P(Red) = 3/12
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 1/4
P(Blue) = 1/3
P(Green) = 5/12
= 1/12
=1/9
= 5/36


P(Red) = 3/12
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 1/4
P(Blue) = 1/3
P(Green) = 5/12
= 5/48
=5/36
= 25/144

A jar has 3 red marbles, 4 blue marbles, and 5 green marbles. If you draw two marbles without replacement, find all possible outcomes using a tree diagram.

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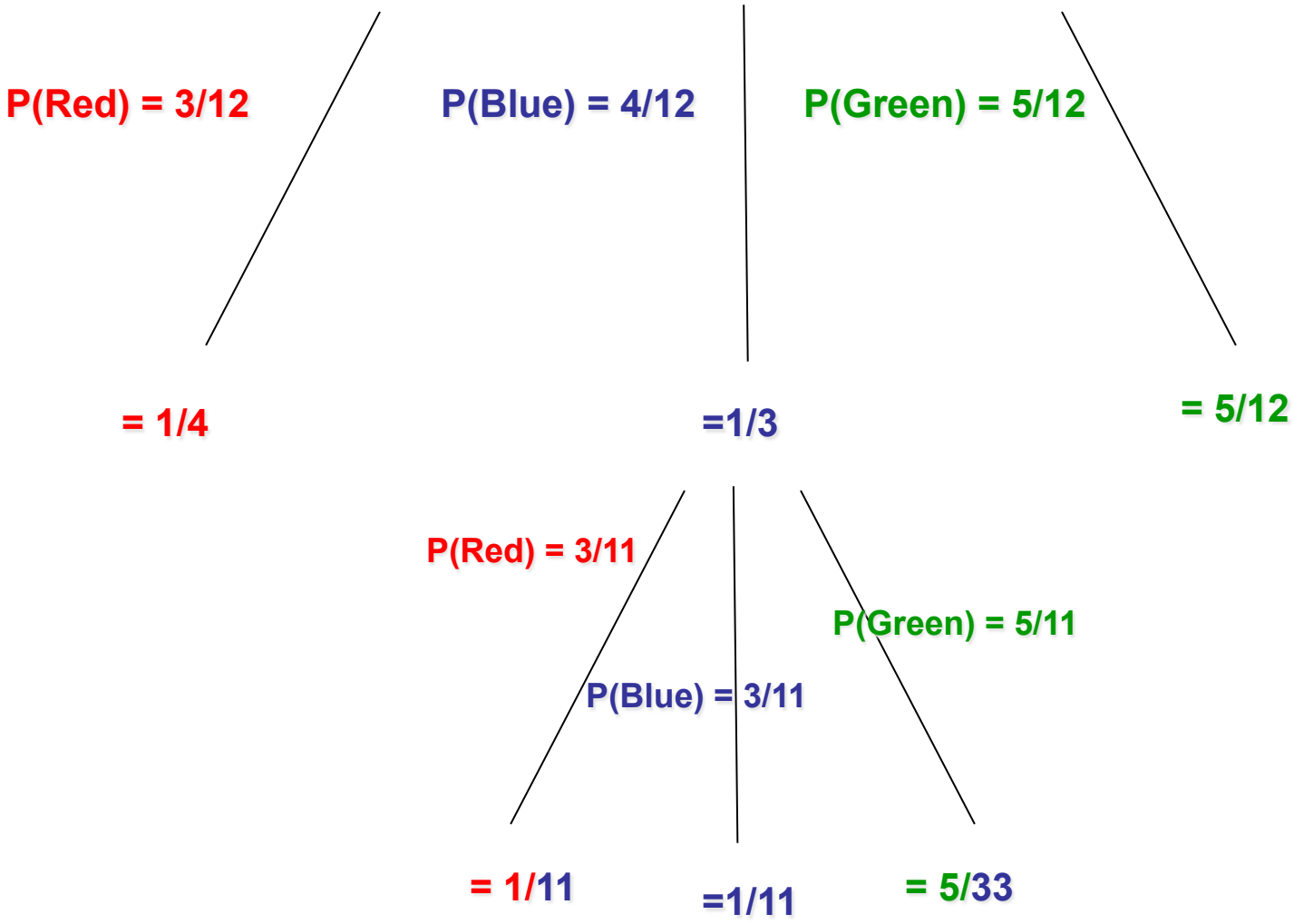
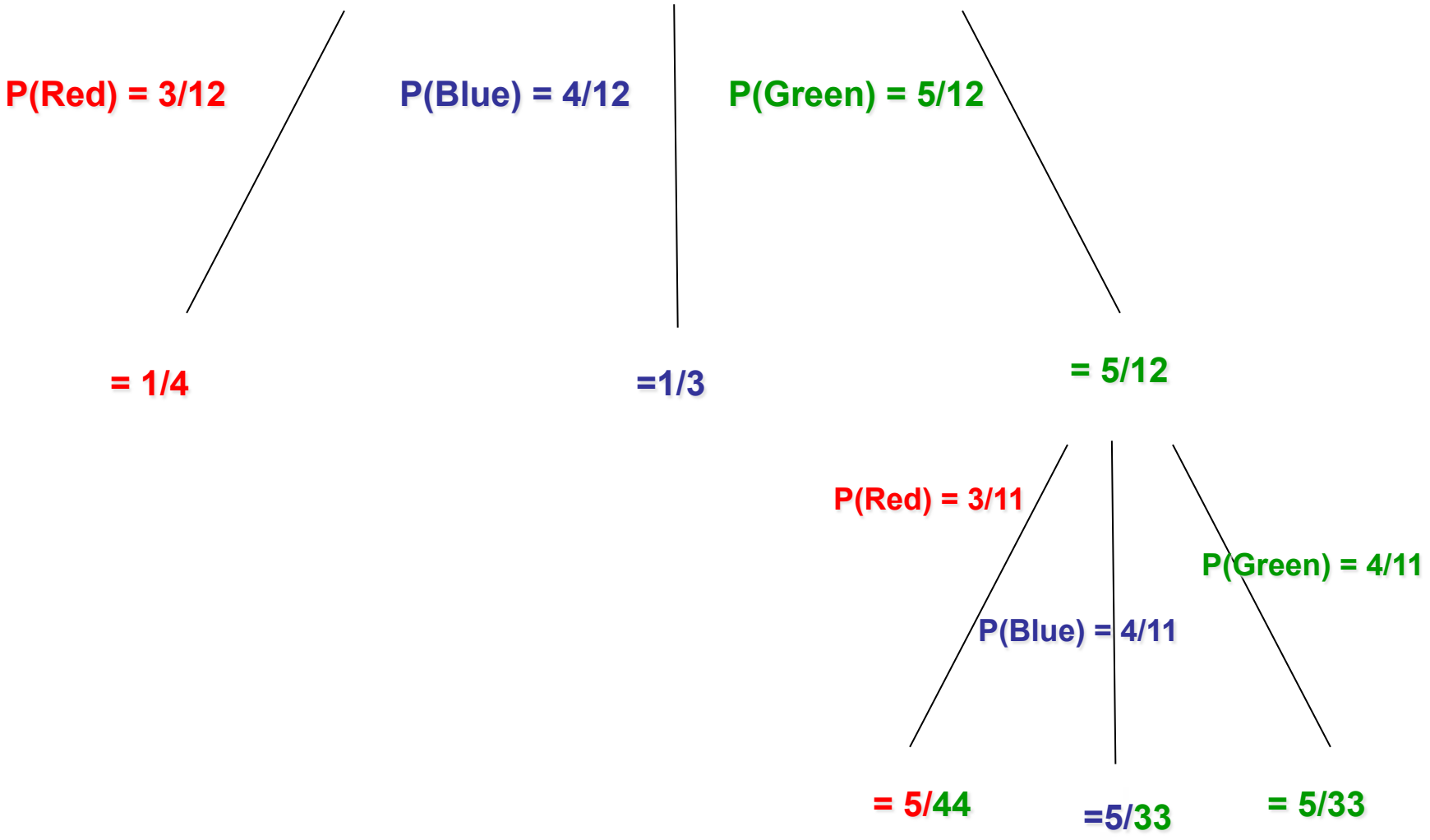
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 2/11
P(Green) = 5/11
P(Blue) = 4/11
= 1/22
=1/11
= 5/44


P(Red) = 3/12
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 3/11
P(Green) = 5/11
P(Blue) = 3/11
= 1/11
=1/11
= 5/33


P(Red) = 3/12
P(Blue) = 4/12
P(Green) = 5/12
= 1/4
=1/3
= 5/12
P(Red) = 3/11
P(Green) = 4/11
P(Blue) = 4/11
= 5/44
=5/33
= 5/33