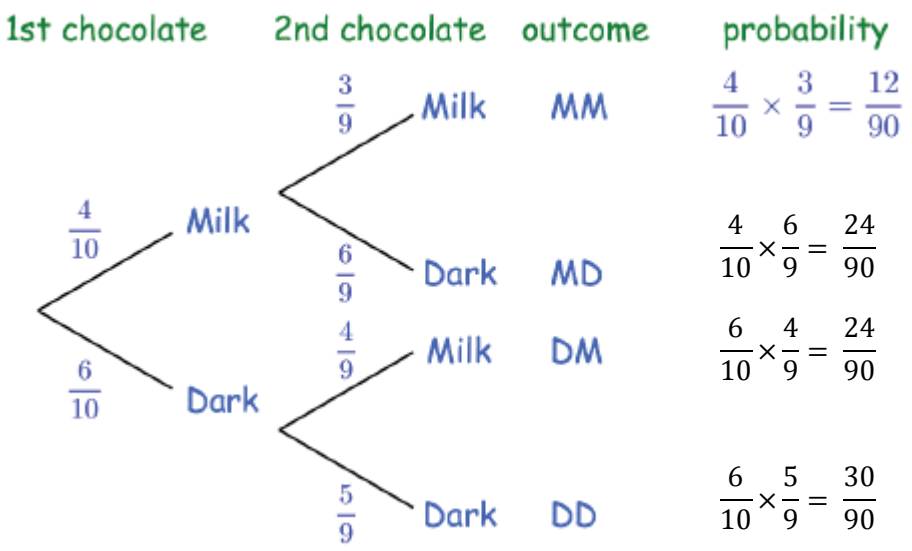
Video 247

Workout

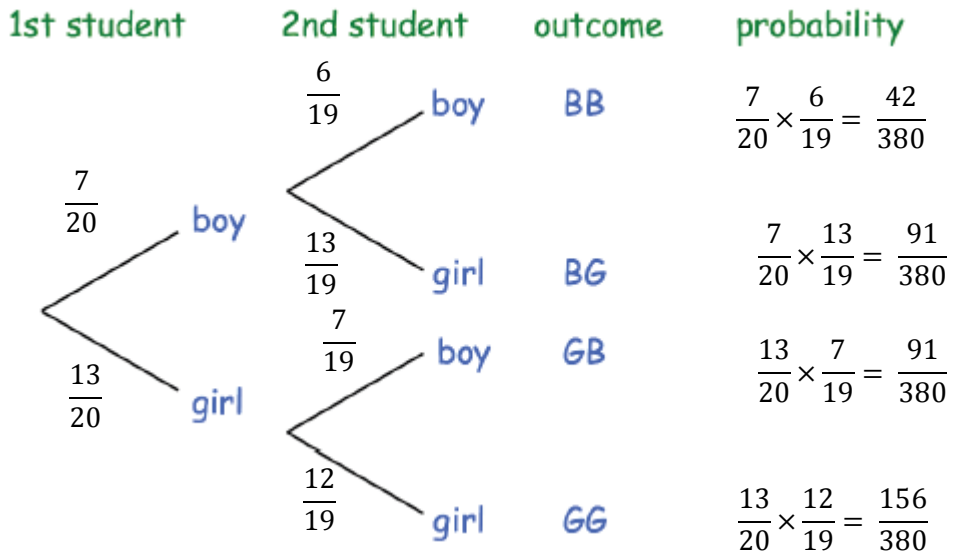
1a: $\frac{5}{7}$ b: $\frac{2}{7}$

2a:



b: $\frac{30}{90}$ c: $\frac{48}{90}$ d: $\frac{60}{90}$

3a:

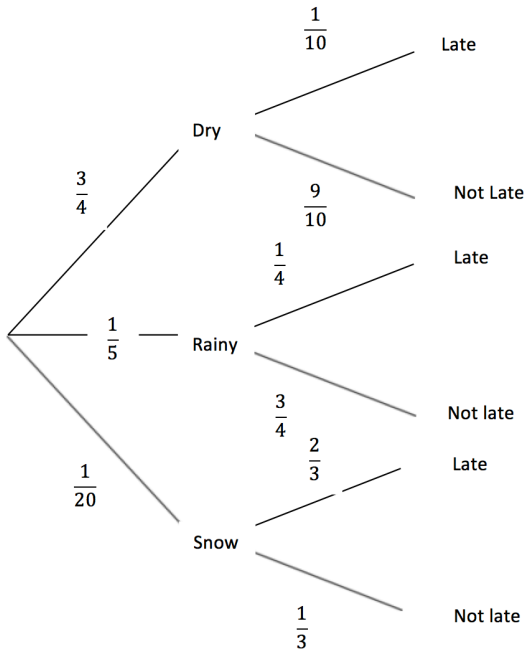


b: $\frac{42}{380}$ c: $\frac{156}{380}$

4a: $\frac{42}{132}$ b: $\frac{20}{132}$ c: $\frac{62}{132}$ d: $\frac{70}{132}$

5a: $\frac{6}{20}$ b: $\frac{3}{20}$

6b: $\frac{27}{40}$ c: $\frac{19}{120}$



7: $\frac{41}{120}$

8a: $\frac{13}{36}$ b: $\frac{23}{36}$

9: $\frac{117}{190}$

10: $\frac{73}{84}$

11a: $\frac{4}{165}$ b: $\frac{7}{33}$ c: $\frac{24}{55}$

12a: $\frac{1}{22}$ b: $\frac{13}{66}$

Apply:

1a: She's forgotten to change the numerators after the first pen is chosen.

The probability of getting blue the second time, having got blue the first time is $\frac{6}{9}$

The probability getting red the second time, having got red the first time is $\frac{2}{9}$

b: $\frac{8}{15}$

2a: $\frac{6}{30}$ b: $\frac{11}{30}$

3: $\frac{1}{323}$

4: $\frac{27}{55}$

5: $\frac{297}{1225}$

6a: $\frac{3}{352}$ b: $\frac{203}{704}$ c: $\frac{45}{64}$

7: $\frac{1}{110}$

8: $\frac{1}{2}$

9: $\frac{47}{120}$

10: $\frac{7}{330}$

11a: $\frac{2}{x} \times \frac{1}{x-1} = \frac{1}{28}$

$\therefore 56 = x(x-1)$

$\therefore\ x^2 - x - 56 = 0$

b:

$\therefore (x+7)(x-8) = 0$

$hence\ x = 8$