

# PC: Unit 8 Prob REVIEW

①  $3 \cdot 2 = 6$

②  $3 \cdot 2 \cdot 6 = 36$

③  ${}^5C_2 = 10$

④  ${}^{10}C_3 = 120$

⑤  $8 \cdot 10 \cdot 10 \cdot 8 \cdot 10 \cdot 10 \cdot 10 \cdot 10 = 6,400,000,000$

⑥  ${}^{10}P_3 = 720$

⑦  ${}^{15}C_6 = 5005$

⑧  ${}^{12}P_4 = 11880$

⑨  ${}^2C_1 \cdot {}^4C_1 \cdot {}^6C_3$   
 $2 \cdot 4 \cdot 20 = 160$

⑩  ${}^{26}P_3 \cdot {}^{10}P_3 = 1,157,600$

⑪  ${}^9C_4 = 126$

⑫  ${}^4P_4 = 24$

⑬  $5 \cdot 4 \cdot 3 = 60$

⑭  $\frac{18}{30} \cdot \frac{17}{29} = \frac{51}{145}$

⑮ a)  $\frac{1}{52} \cdot \frac{12}{51} = \frac{12}{2652} = \frac{1}{221}$

b)  $\frac{20}{52} + \frac{26}{52} - \frac{10}{52} = \frac{36}{52} = \frac{9}{13}$

⑯  $\frac{1}{6} + \frac{3}{6} = \frac{4}{6} = \frac{2}{3}$

⑰  $\frac{4}{6} + \frac{3}{6} - \frac{2}{6} = \frac{5}{6}$

⑱ a)  $\frac{3}{15} \cdot \frac{7}{15} = \frac{21}{225} = \frac{7}{75}$

b)  $\frac{4}{15} \cdot \frac{1}{14} = \frac{4}{210} = \frac{2}{105}$

c)  $\frac{4}{15} + \frac{1}{15} = \frac{5}{15} = \frac{1}{3}$

⑲ a)  $\frac{1}{6} + \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$

b)  $\frac{1}{6} \cdot \frac{2}{5} = \frac{2}{30} = \frac{1}{15}$

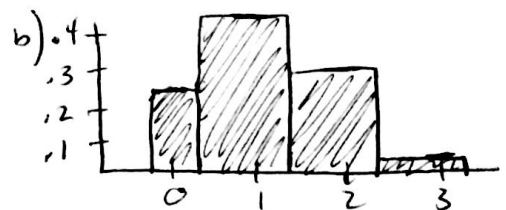
c)  $\frac{1}{6} \cdot \frac{1}{5} = \frac{1}{30}$

⑳  $.2(-10000) + .8(5000) =$   
 $-2000 + 4000 = 2000$  - yes.

㉑  $\frac{1}{50}(-80) + \frac{49}{50}(3) = \frac{-80}{50} + \frac{147}{50} = \frac{67}{50}$

㉒

	0	1	2	3
a)	$\frac{20}{85} = .235$	$\frac{32}{85} = .412$	$\frac{25}{85} = .294$	$\frac{8}{85} = .059$



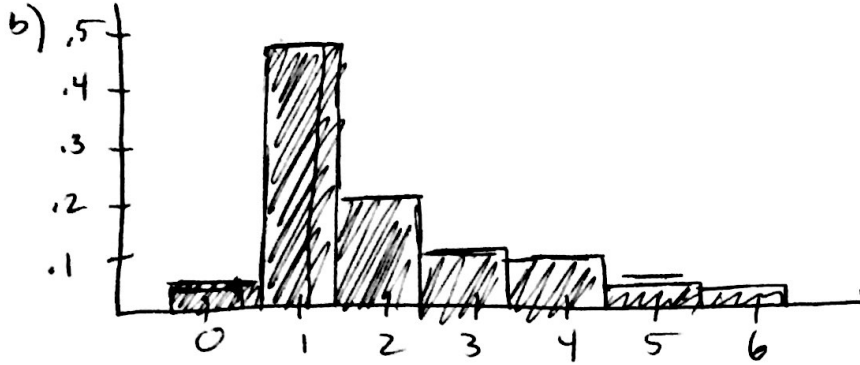
c)  $.235(0) + .412(1) + .294(2) + .059(3) = 1.177$

d)  $1.177(18)(12) = 254.23$

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a)

0	1	2	3	4	5	6
$\frac{5}{100} = .05$	$\frac{48}{100} = .48$	$\frac{22}{100} = .22$	$\frac{11}{100} = .11$	$\frac{9}{100} = .09$	$\frac{3}{100} = .03$	$\frac{2}{100} = .02$



c)  $.05(0) + .48(1) + .22(2) + .11(3) + .09(4) + .03(5) + .02(6)$   
 $= 1.88$

d)  $1.88(42)(5) = 394.8$