



(a) $P(\text{luggage}) = (.2)(.75) + (.8)(.98)$
 $= .15 + .784 = \boxed{.934}$

(b) $P(\text{on time} | \text{luggage}) = \frac{(.8)(.98)}{(.8)(.98) + (.2)(.75)}$
 $= \frac{.784}{.934} = \boxed{.8394}$

(5) 19 boys, 13 girls \rightarrow 1st four students $\rightarrow P(4 \text{ boys})$

$$\frac{19}{32} \cdot \frac{18}{31} \cdot \frac{17}{30} \cdot \frac{16}{29} = \boxed{.1078}$$

(6)	High BP	Okay BP	total
High chol.	.11	.21	.32
OK chol.	.16	.52	.68
total	.27	.73	1

(a) $P(\text{High BP}) = \boxed{.27}$

(b) $P(\text{High BP} | \text{High chol.}) = \frac{P(\text{High BP} \cap \text{High chol.})}{P(\text{High chol.})}$
 $= \frac{.11}{.32} = \boxed{.3438}$

(c) $P(\text{High chol.} | \text{High BP}) = \frac{P(\text{High chol.} \cap \text{High BP})}{P(\text{High BP})} = \frac{.11}{.27} = \boxed{.4074}$