


# In Class Examples:

①   $P(\text{write} | \text{HS}) = \frac{12}{20} = \frac{3}{5} = \boxed{60\%}$

② a)  $P(B | Y) = \frac{5}{13} \cdot \frac{8}{12} = \frac{40}{169} = \boxed{23.7\%}$

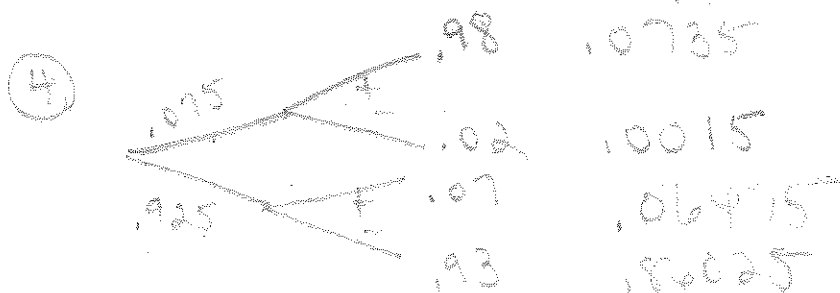
b)  $P(Y | B) = \frac{5}{12} \cdot \frac{8}{12} = \frac{40}{152} = \boxed{25.6\%}$

③  $P(\text{sopt and boy}) = \frac{1}{6} \cdot \frac{13}{23} = \frac{13}{138} = 9.4\%$

$P(\text{jr and boy}) = \frac{1}{3} \cdot \frac{4}{11} = \frac{4}{33} = 12.1\%$

$P(\text{sr and boy}) = \frac{1}{2} \cdot \frac{5}{14} = \frac{5}{28} = 17.8\%$

Sum of these  
=  $\boxed{39.3\%}$



a)  $P(\text{disease} | \text{test pos}) = \frac{P(\text{disease} \cap \text{test pos})}{\text{tests pos}} = \frac{.0735}{.0735 + .06475} = \boxed{53.2\%}$

b)  $P(\text{test is accurate}) = .0735 + .86025 = \boxed{93.4\%}$