

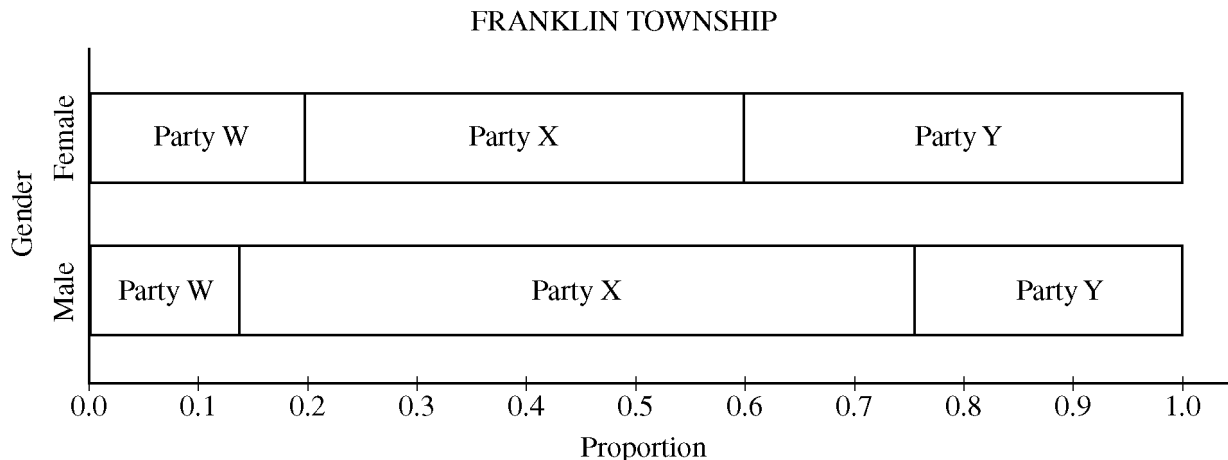
**2011 AP® STATISTICS FREE-RESPONSE QUESTIONS**

2. The table below shows the political party registration by gender of all 500 registered voters in Franklin Township.

PARTY REGISTRATION–FRANKLIN TOWNSHIP

	Party W	Party X	Party Y	Total
Female	60	120	120	300
Male	28	124	48	200
Total	88	244	168	500

- (a) Given that a randomly selected registered voter is a male, what is the probability that he is registered for Party Y?
- (b) Among the registered voters of Franklin Township, are the events “is a male” and “is registered for Party Y” independent? Justify your answer based on probabilities calculated from the table above.
- (c) One way to display the data in the table is to use a segmented bar graph. The following segmented bar graph, constructed from the data in the party registration–Franklin Township table, shows party-registration distributions for males and females in Franklin Township.



In Lawrence Township, the proportions of all registered voters for Parties W, X, and Y are the same as for Franklin Township, and party registration is independent of gender. Complete the graph below to show the distributions of party registration by gender in Lawrence Township.

