## Check Your Understanding Voting - Proportional Representation and Approval Voting

The table below identifies some key concepts from this unit. Complete each question, check your answers, and get help as needed.

| Key Concepts | Basic <br> Questions | Intermediate <br> Questions | Advanced <br> Questions |
| :---: | :---: | :---: | :---: |
| Proportional Representation | 1 | 2,3 |  |
| Approval | 4 | 5 |  |

1) A country is using proportional representation to create its government. There will be 225 members of parliament from 4 parties (A, B, C, and D). The results of the election are presented in the table below.

| Party | \% of Vote |
| :---: | :---: |
| A | $33 \%$ |
| B | $19 \%$ |
| C | $32 \%$ |
| D | $16 \%$ |

How many seats did each party win?
2) There are 5 parties running in an election to fill 185 vacant seats in government. 85721 people voted in the election and the results are presented in the table below.

| Party | \# of Votes |
| :---: | :---: |
| A | 12258 |
| B | 13201 |
| C | 8525 |
| D | 43203 |
| E | 8534 |

Using proportional representation, how many seats does each party win?
3) In 2019, Canada held a federal election and the number of popular votes each party received is presented in the table below.

| Party | \# of Votes |
| :---: | :---: |
| Liberal | 6018728 |
| Conservative | 6239227 |
| Bloc <br> Quebecois | 1387030 |
| NDP | 2903722 |
| Green Party | 1189607 |
| Independent | 72546 |

a) If Canada used a proportional representation system, how many of the 338 seats would each party have received?
b) Since Canada uses a "rep by pop" system with plurality winners, the number of seats each party actually won is presented below. Given this information, why would the party controlling government in Canada (the one with the most number of seats) be unlikely to want to switch to a proportional representation system?

| Party | \# of seats by <br> "Rep by Pop" |
| :---: | :---: |
| Liberal | 157 |
| Conservative | 121 |
| Bloc <br> Quebecois | 32 |
| NDP | 24 |
| Green Party | 3 |
| Independent | 1 |

4) You and 8 friends are trying to choose a restaurant for dinner. Your choices are: pizza, burgers, tacos, shawarma, and Vietnamese. You have all agreed to select the restaurant using approval voting, and the results are presented in the table below.

| \# of votes | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Burgers <br> Tacos <br> Vietnamese | Tacos | Pizza <br> Shawarma | Vietnamese <br> Pizza <br> Shawarma | Vietnamese <br> Shawarma |
|  |  |  |  |  |  |

Which restaurant should be chosen?
5) To determine the menu at a high school cafeteria, the 250 Grade 11 students were asked their preferences between Pizza, Hamburgers, and Tacos. The results are presented in the table below.

| \# of <br> votes | $\mathbf{6 3}$ | $\mathbf{5 1}$ | $\mathbf{4 6}$ | $\mathbf{4 5}$ | $\mathbf{2 4}$ | $\mathbf{2 1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pizza <br> Hamburgers | Pizza <br> Tacos | Tacos | Tacos <br> Hamburgers | Hamburgers | Pizza |

Using approval voting, which type of food should be served?

## Answer Key

1) Party A 74 seats; Party B 43 seats; Party C 72 seats; Party D 36 seats
2) Party A 27 seats; Party B 29 seats; Party C 18 seats; Party D 93 seats; Party E 18 seats
3) A) Lib 114 seats; Cons 119 seats; Bloc 26 seats; NDP 55 seats; Green 23 seats; Ind 1 seat B) The winning party would lose seats under proportional representation (why change a system when you won?).
4) Shawarma
5) Tacos
