## Task - Public Opinions

Name $\qquad$ Class Period $\qquad$

A public opinion survey explored the relationship between age and support for increasing the minimum wage. The results are found in the following two-way frequency table.

|  | For | Against | No <br> Opinion | TOTAL |
| :---: | :---: | :---: | :---: | :---: |
| Ages 21- <br> 40 | 25 | 20 | 5 |  |
| Ages 41- <br> 60 | 30 | 30 | 15 |  |
| Over 60 | 50 | 20 | 5 |  |
| TOTAL |  |  |  |  |

1. In the 41 to 60 age group, what percentage supports increasing the minimum wage? What type of probability is this...Joint, marginal, or conditional?
2. Out of the people that have no opinion, what percentage are over 60 years old?
3. What are the marginal frequencies for each age group?
4. What are the marginal frequencies for each support opinion?
5. What are the joint frequencies?
6. Why are joint and marginal frequencies important when describing trends or associations in data?
7. Do you see any significant trends when looking at the frequencies in this task?
8. Using the table below, construct a table displaying the joint and marginal frequencies.

|  | Dance | Sports | Movies | TOTAL |
| :---: | :---: | :---: | :---: | :---: |
| Women | 16 | 6 | 8 |  |
| Men | 2 | 10 | 8 |  |
| TOTAL |  |  |  |  |


|  | Dance | Sports | Movies | TOTAL |
| :---: | :---: | :---: | :---: | :---: |
| Women |  |  |  |  |
| Men |  |  |  |  |
| TOTAL |  |  |  |  |

2. After the basketball game, the statistician did not have time to compute Jana's relative frequency. Complete the table determining the relative frequency for Jana. Discuss any trends or associations from the table below concerning points scored by two basketball players.

| Point <br> Value | Frequency for <br> Jana | Relative <br> Frequency for <br> Jana | Frequency for Jill | Relative <br> Frequency for Jill |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 0 |  | 1 | 0.025 |
| 1 | 0 |  | 1 | 0.025 |
| 2 | 0 |  | 2 | 0.05 |
| 3 | 0 |  | 3 | 0.05 |
| 4 | 0 |  | 3 | 0.075 |
| 5 | 1 |  | 5 | 0.075 |
| 6 | 0 |  | 4 | 0.125 |
| 7 | 3 |  | 1 | 0.1 |
| 8 | 6 |  | 4 | 0.125 |
| 9 | 5 |  | 5 | 0.025 |
| 10 | 7 |  | 0 | 0.1 |
| 11 | 5 |  | 0 | 0.125 |
| 12 | 4 |  | 1 | 0.075 |
| 13 | 4 |  | $\mathbf{4 0}$ | 0 |
| 14 | 3 |  |  | 0 |
| 15 | 2 |  |  | 0.025 |
| TOTALS | $\mathbf{4 0}$ |  |  | $\mathbf{1}$ |

