1. At a swimming pool there are 2 managers, 8 lifeguards, 3 concession stand clerks, and 2 maintenance people. If a person is selected at random, find the probability that the person is either a lifeguard or a manager.

2. An automobile dealer has 10 Fords, 7 Buicks, and 5 Plymouths on his used-car lot. If a person purchases a used car, find the probability that it is a Ford or a Buick. Answer should be in fraction.

3. In a meeting there are five women and four men. If one person is selected, find the probability that the person is a woman

4. The following data were obtained in response to the question, "Do you favor the proposal of the school's combining the elementary and middle school students in one building?"

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Yes | No | No Opinion |
| Males | 72 | 81 | 5 |
| Females | 103 | 68 | 7 |

If a person is selected at random, what is the probability the person is a male or is against the issue?

5. Please put your answer in fraction form fully reduced.

The following data were obtained in response to the question, "Do you favor the proposal of the school's combining the elementary and middle school students in one building?"

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Yes | No | No Opinion |
| Males | 72 | 81 | 5 |
| Females | 103 | 68 | 7 |

If a person is selected at random, what is the probability that the person is a female or favors the issue?

6. Some graduates' average grades and degrees showed the following results.

|  |  |  |  |
| --- | --- | --- | --- |
| Degree | C | B | A |
| B.S. | 5 | 8 | 15 |
| B.A. | 7 | 12 | 8 |

If a graduate is selected at random, find this probability:

The graduate has a B.S. degree, given that he or she has an A average.

Please put your answer in reduced fraction form

7. Some graduates' average grades and degrees showed the following results.

|  |  |  |  |
| --- | --- | --- | --- |
| Degree | C | B | A |
| B.S. | 5 | 8 | 15 |
| B.A. | 7 | 12 | 8 |

If a graduate is selected at random, find this probability:

Given that the graduate has a B.A. degree, the graduate has a C average.

Please put your answer in reduced fraction form

|  |  |
| --- | --- |
|  | |
|  | 8. There are five Biology instructors and six physics instructors at a college. If a committee of four instructors is selected, find the probability of **at least one** of them being a physics instructor.  Please answer in reduced fraction form  9. A van contains three kindergartners and five first-graders. If two children are ill, find the probability that **at least one** of them is a kindergartner.  Please answer in reduced fraction form |