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1. Calculate the theoretical probability of rolling a 3 on a 6 -sided die.
2. Given the data below, what is the probability that a person would draw a diamond card.

3. Calculate the probability that a randomly chosen student from the class has a sister.

|  | Has a brother | Does not have a brother |
| :---: | :---: | :---: |
| Has a sister | 5 | 12 |
| Does not have a sister | 2 | 7 |

4. Calculate the probability that a randomly chosen student from the class did not pass the test.

|  | Passed the Test | Failed the Test |
| :---: | :---: | :---: |
| Completed the homework | 5 | 8 |
| Did not complete the homework | 3 | 12 |

5. Calculate the probability of selecting a Queen or Ace from a standard deck of cards.

6. Calculate the probability of landing on red or pink.

7. Calculate the probability of landing on an odd number or a multiple of 5 .

8. In a certain Geometry class of 32 students, 12 of the students play basketball and 17 play soccer. There are 6 students who play neither. What is the probability that a randomly chosen student plays basketball ONLY? (Hint: Draw a chart and/or use a Venn Diagram).
9. Use the data below to calculate the probability that a randomly chosen student was male given his favorite color is yellow.

|  | Male | Female |
| :--- | :---: | :---: |
| Red | 7 | 5 |
| Purple | 5 | 6 |
| Yellow | 9 | 4 |

10. Use the data below to calculate the probability that a randomly chosen student eats breakfast given they are female.

|  | Male | Female |
| :---: | :---: | :---: |
| Eat <br> Breakfast | 12 | 19 |
| Do NOT eat <br> Breakfast | 17 | 3 |

