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|  | TREE DIAGRAMS |
| 1. | Two boxes each contain 6 petunia plants that are not yet flowering. Box A contains 2 plaints that will have purple flowers and 4 plants that will have white flowers. Box B contains 5 plants that will have purple flowers and 1 plant that will have white flowers. A box is selected by tossing a coin, and one plant is removed at random from it. 1. Draw a tree diagram to show all outcomes.
2. Determine the probability it will have purple flowers.
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| 2. | The probability of rain during the Kentucky Derby is estimated to be . If it does rain Mudlark will be the favorite to win the race (with a probability of ). If it does not rain then he only has a 1 in 20 chances of winning. 1. Make a tree diagram to show all outcomes.
2. Determine the probability that Mudlark wins!
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| 3. | Carl’s car will only start 80% of the time and his motorcycle will only start 60% of the time. 1. Draw a tree diagram to illustrate this situation.
2. Use the diagram to find the probability that:
3. Both will start
4. Carl can only use his car.
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| 4. | A container holds 10 green, 15 red, and 25 yellow objects. Suppose someone removes 3 objects (without replacing them). Make a Tree Diagram and find the following: 1.
2.
3.
4.
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|  | VENN DIAGRAMS |
| 5. | Describe the Shaded Regions Using Set Notation:  |
|  |  |  |  |
|  |  |  |
| 6. | Shade in the Regions Described:  |
|  | Shade:  | Shade:  | Shade:  |
| 7. | In a class of 60 students, 35 students study Music and 40 students study Art. 25 students study both. 1. Make a Venn Diagram Showing Tabulation of all areas. (M=Music, A=Art)
2. Make a Venn Diagram Showing the Probabilities of all areas.
3. For a randomly selected student find
4. For a randomly selected student find
5. For a randomly selected student find
6. Find
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| 8. | Refer to the venn diagram at the right. Let S=sophomore and A =In advanced algebra. Find the following probabilities and explain their meaning: 1.
2.
3.
4.
5.
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