

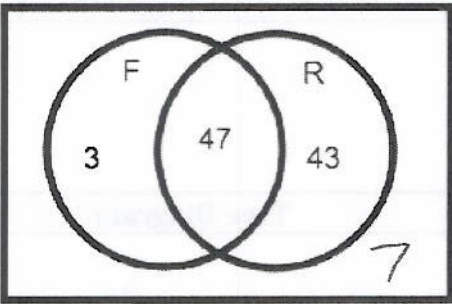

## Set

For each situation, one of the representations (two-way table, Venn diagram, tree diagram, context or probability notation) is provided. Use the provided information to complete the remaining representations.

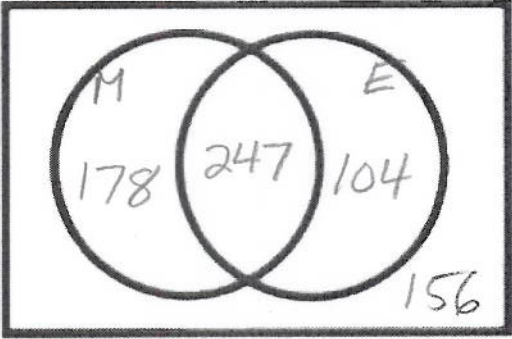
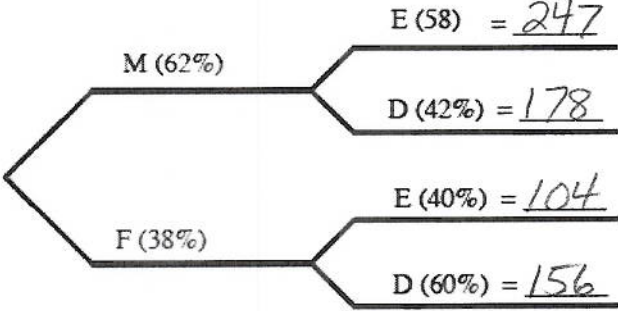
Are you Blue?

Notation	2-way Table																		
<p>Key:  Male = M                  Female = F  Blue = B                  Not Blue = N</p> <p>Sample size = 200</p> <p><math>P(B) = 84/200</math>      <math>P(M) = 64/200</math></p> <p><math>P(F B) = 48/84</math>      <math>P(B F) = 48/136</math></p> <p><math>P(M \cap B) = 36/200</math>   <math>P(M \cup B) = 112/200</math></p>	<table border="1"> <thead> <tr> <th></th> <th>Blue</th> <th>Not Blue</th> <th>Total</th> </tr> </thead> <tbody> <tr> <th>Male</th> <td style="text-align: center;">36</td> <td style="text-align: center;">28</td> <td style="text-align: center;">64</td> </tr> <tr> <th>Female</th> <td style="text-align: center;">48</td> <td style="text-align: center;">88</td> <td style="text-align: center;">136</td> </tr> <tr> <th>Total</th> <td style="text-align: center;">84</td> <td style="text-align: center;">116</td> <td style="text-align: center;">200</td> </tr> </tbody> </table>				Blue	Not Blue	Total	Male	36	28	64	Female	48	88	136	Total	84	116	200
	Blue	Not Blue	Total																
Male	36	28	64																
Female	48	88	136																
Total	84	116	200																
Venn Diagram	Tree Diagram																		
<p>Write three observations you can make about this data.</p> <p>Answers will vary.</p>																			

Right and left handedness of a group.

Notation	2-way Table																
<p><b>Key:</b>                      Male = M                  Female = F                      Lefty = L                 Righty = R</p> <p>Sample size = 100 people</p> <p><math>P(L) = \frac{10}{100}</math>                  <math>P(M) = \frac{50}{100}</math>  <math>P(F) = \frac{50}{100}</math>                  <math>P(L F) = \frac{3}{50}</math>  <math>P(L M) = \frac{7}{50}</math></p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 20%;">Lefty</th> <th style="width: 20%;">Righty</th> <th style="width: 20%;">Total</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>7</td> <td>43</td> <td>50</td> </tr> <tr> <td>Female</td> <td>3</td> <td>47</td> <td>50</td> </tr> <tr> <td>Total</td> <td>10</td> <td>90</td> <td>100</td> </tr> </tbody> </table>		Lefty	Righty	Total	Male	7	43	50	Female	3	47	50	Total	10	90	100
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Male	7	43	50														
Female	3	47	50														
Total	10	90	100														
Venn Diagram	Tree Diagram																
																	
<p>Write three conditional statements regarding this data.</p> <p><i>Answers will vary.</i></p>																	

The most important meal of the day.

Notation	2-way Table																
<p>Key:  Male = M                  Female = F  Eats Breakfast = E    Doesn't Eat Breakfast = D</p> <p>Sample size = 685  <math>P(E) = 351/685</math>    <math>P(E M) = 247/425</math>  <math>P(E \cap M) = \frac{247}{685}</math>    <math>P(E F) = 104/260</math>  <math>P(E \cap F) = 104/685</math></p>	<table border="1"> <thead> <tr> <th></th> <th>Eats</th> <th>Doesn't</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>247</td> <td>178</td> <td>425</td> </tr> <tr> <td>Female</td> <td>104</td> <td>156</td> <td>260</td> </tr> <tr> <td>Total</td> <td>351</td> <td>334</td> <td>685</td> </tr> </tbody> </table>		Eats	Doesn't	Total	Male	247	178	425	Female	104	156	260	Total	351	334	685
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Male	247	178	425														
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<p>Does this data surprise you? Why or why not.  <i>Answers will vary.</i></p>																	

