

Design Number	Pros	Cons
1	<ul style="list-style-type: none"> <li>• (Likely) less time to return coordinates, since the user can select the return type they would most likely need</li> <li>• Uses less memory than storing both coordinate types</li> </ul>	<ul style="list-style-type: none"> <li>• More complex code</li> <li>• Longer instance-creating period since the user needs to enter more information</li> <li>• Takes longer to return non-selected type of coordinate (although in theory this would rarely happen) since the user should choose the type they would want to be returned to them most often</li> </ul>
2	<ul style="list-style-type: none"> <li>• Quick to return Polar Coordinates</li> <li>• Uses less memory than storing both coordinate types</li> <li>• Simpler code</li> </ul>	<ul style="list-style-type: none"> <li>• Takes longer to return Cartesian Coordinates</li> </ul>
3	<ul style="list-style-type: none"> <li>• Quick to return Cartesian Coordinates</li> <li>• Uses less memory than storing both coordinate types</li> <li>• Simpler code</li> </ul>	<ul style="list-style-type: none"> <li>• Takes longer to return Polar Coordinates</li> </ul>
4	<ul style="list-style-type: none"> <li>• Quick to return both types of coordinates</li> <li>• Simpler code, since it can comprise of just design #3 or design #4, but saving both types of coordinates instead of only one.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses more memory</li> <li>• Slower when creating coordinate instances since they must be stored in both forms</li> </ul>
5	<ul style="list-style-type: none"> <li>• The directory might make the design slightly easier to understand</li> <li>• Separation may make future debugging easier</li> <li>• Faster to retrieve both types of coordinates</li> </ul>	<ul style="list-style-type: none"> <li>• Takes more memory to store both the coordinate types</li> <li>• The program itself takes more memory since there's more code to store</li> <li>• Although it might be simpler for a person to understand, there are more files so it will be more complicated for the computer</li> <li>• Slower when creating the instances of the coordinates, since two methods must now be called and two sets of coordinates need to be saved</li> </ul>