

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