| DESIGN | PROS | CONS |
|---|---|---|
| 2 | -Polar coordinates will be accessible quickly<br>-Non redundant code<br>- Less storage taken up compared to storing both forms | -Cartesian coordinates take long time to convert<br>-less efficient with computation |
| 3 | -Cartesian coordinates will be accessible quickly<br>- More readable code<br>- Less storage taken up compared to storing both forms | -Polar coordinates will take longer to retrieve<br>-less efficient in computatation |
| 5 | -Very readable code<br>-Allows for unique implementation of subclasses | - Requires type casting which is not a best way to program |

Time elapsed for getRho(CP5(2)): 0.006
Time elapsed for getTheta(CP5(2)): 0.007
Time elapsed for getX(CP5(2)): 0.007
Time elapsed for getY(CP5(2)): 0.008
Time elapsed for getDistance(CP5(2)): 0.013000000000000001
Time elapsed for getRho(CP5(3)): 0.009000000000000001
Time elapsed for getTheta(CP5(3)): 6.1610000000000005
Time elapsed for getX(CP5(3)): 0.005
Time elapsed for getY(CP5(3)): 0.006
Time elapsed for getDistance(CP5(3)): 0.005

Process finished with exit code 0

ime elapsed for getRho(CP2): 0.005
Time elapsed for getTheta(CP2): 0.003
Time elapsed for getX(CP2): 0.004
Time elapsed for getY(CP2): 0.005
Time elapsed for getDistance(CP2): 0.011

Process finished with exit code 0