

Lab 13 Warm Up Activity

1. Polymorphism is useful on gridded boards or worlds where pieces/sprites/meeples/etc because it allows for different pieces or sprites to do different behaviors. It is useful because it allows all the pieces to share the same class while maintaining different behaviors which lets new pieces that are introduced in the game not affect the rest of the code.

Inheritance is sufficient in games that have different characters that have different properties but the same behavior(e.g. Checkers or snakes and ladders).

Polymorphism is needed for games that have pieces with unique behaviors(e.g. chess).

Games that require more than inheritance and polymorphism are games that require strategies or different algorithms since they are too complex for just polymorphism.

2. The piece.h has many different components that use inheritance. For example, the getrow() and getcol() and setrow() and setcol() functions use inheritance. This and the display() function work together to make the game more organized and easier to get the information that is needed.
3. The isMoveLegal() function uses polymorphism to make sure each piece is only allowed to move in the specific way that it's supposed to.