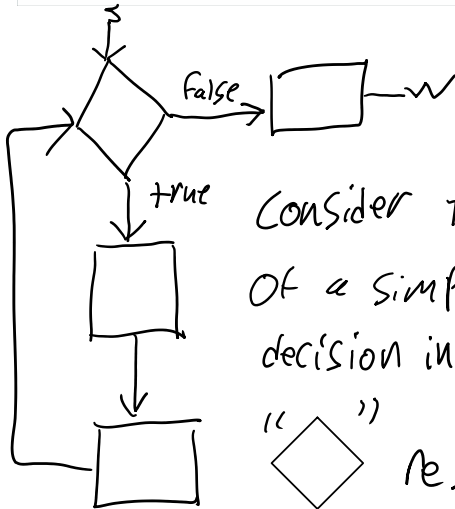


Consider this roller coaster



like a loop, this roller coaster goes through the same motions (or actions) repeatedly.

Since we do not have a way to get off of the coaster, this "loop" will continue forever.



Consider this UML diagram. This is an example of a simple loop. The "◇" shape means decision in UML. Note, as long as our "◇" resolves to true we keep going through the same steps. If it is never false, we end up with the infinite loop that we observed in the roller coaster example.

Basic Forms

```
for ( initialization; test; iteration ) {
```

```
    // do something  
    // good for if you know how many times something will run  
}
```

```
while ( condition ) {
```

```
    // do something  
    // good for if you don't know how many times something will run  
}
```

```
do {
```

```
    // do something  
    // will always run at least once!  
} while ( condition );
```