

1.

```
>>> iron_man = Avenger("Iron Man", 20, 5)
>>> captain_america = Avenger("Captain America", 20, 20)
>>> hulk = Avenger("Hulk", 50, 40)
>>> thor = Avenger("Thor", 100, 10)
>>> hulk.flex()
I am Hulk
Hulk has 30 health.
>>> iron_man.flex()
I am Iron Man
Iron Man has 30 health.
>>> captain_america.fight_evil()
Captain America has 25 health.
Take that evil!
>>> captain_america.fight_evil()
Captain America has 20 health.
Take that evil!
>>> captain_america.fight_good(hulk)
Hulk has 25 health.
Take that evil!
Captain America has 15 health.
Take that evil!
Captain America has 15 health.
Hulk wins.
Captain America has 10 health.
>>> iron_man.fight_good(captain_america)
Captain America has 5 health.
Take that evil!
Iron Man has 25 health.
Take that evil!
Iron Man has 25 health.
Captain America wins.
Iron Man has 20 health.
>>> captain_america.fight_good(thor)
Thor has 25 health.
Take that evil!
Captain America is dead.
Take that evil!
Captain America is dead.
Thor wins.
Captain America is dead.
```

```
>>> thor.check_death()
Thor has 25 health.
>>> thor.flex()
I am Thor
Thor has 25 health.
>>> thor.fight_good(iron_man)
Iron Man has 15 health.
Take that evil!
Thor has 20 health.
Take that evil!
Thor has 20 health.
Thor wins.
Iron Man has 10 health.
>>> hulk.fight_good(iron_man)
Iron Man has 5 health.
Take that evil!
Hulk has 20 health.
Take that evil!
Hulk has 20 health.
Hulk wins.
Iron Man is dead.
>>> hulk.fight_good(captain_america)
Captain America is dead.
Take that evil!
Hulk has 15 health.
Take that evil!
Hulk has 15 health.
Hulk wins.
Captain America is dead.
>>> thor.fight_evil()
Thor has 15 health.
Take that evil!
>>> Avenger.health = 40
>>> hulk.health
15
>>> Avenger.alive = "Thanos wins"
>>> thor.alive
'Thanos wins'
>>> thor.alive = False
>>> Avenger.alive
'Thanos wins'
>>> Avenger.kick
Error
```

2.

```
>>> iron_man = CockyAvenger("Iron Man", 20, 5)
>>> captain_america = HumbleAvenger("Captain America", 20, 20)
>>> hulk = Avenger("Hulk", 50, 40)
>>> thor = CockyAvenger("Thor", 100, 10)
>>> hulk.flex()
I am Hulk
Hulk has 30 health.
>>> iron_man.flex()
I am the best
>>> captain_america.fight_evil()
Captain America has 28 health.
Are you ok evil?
>>> captain_america.flex()
I am an Avenger
Humblebrag score: 1
>>> captain_america.fight_good(hulk)
Captain America has 26 health.
Are you ok evil?
Hulk has 25 health.
Take that evil!
Hulk has 25 health.
Hulk wins.
Captain America has 21 health.
I hope you are ok.
>>> iron_man.fight_good(captain_america) #civil war
Iron Man has 25 health.
Take that evil!
Iron Man has 20 health.
Take that evil!
Iron Man has 20 health.
Iron Man wins.
Iron Man has 15 health.
I'm the best Avenger
>>> captain_america.fight_good(thor)
Captain America has 19 health.
Are you ok evil?
Thor has 25 health.
Take that evil!
Thor has 25 health.
Thor wins.
Captain America has 14 health.
```

```
I hope you are ok.
>>> thor.check_death()
Thor has 25 health.
>>> thor.flex()
I am the best
>>> thor.fight_good(iron_man)
Thor has 20 health.
Take that evil!
Thor has 15 health.
Take that evil!
Thor has 15 health.
Thor wins.
Thor has 10 health.
I'm the best Avenger
>>> hulk.fight_good(iron_man)
Iron Man has 10 health.
Take that evil!
Hulk has 20 health.
Take that evil!
Hulk has 20 health.
Hulk wins.
Iron Man has 5 health.
>>> hulk.fight_good(captain_america)
Captain America has 12 health.
Are you ok evil?
Hulk has 15 health.
Take that evil!
Hulk has 15 health.
Hulk wins.
Captain America has 7 health.
>>> thor.fight_evil()
Thor has 5 health.
Take that evil!
>>> HumbleAvenger.fight_good(thor, iron_man)
Thor is dead.
Take that evil!
Iron Man is dead.
Take that evil!
Iron Man is dead.
Thor wins.
Iron Man is dead.
I hope you are ok.
Error
>>> captain_america.humblescore
```

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6
>>> HumbleAvenger.humblescore
0
>>> CockyAvenger.flex()
Error
>>> CockyAvenger.flex(hulk)
I am the best
>>> CockyAvenger.flex(captain_america)
I am the best
```

```
class EvilAvenger(CockyAvenger):
    def __init__(self, name, punch, kick, archnemesis):
        CockyAvenger.__init__(self, name, punch, kick)
        self.arnemesis = archnemesis
    def fight_evil(self):
        CockyAvenger.fight_good(self, self.arnemesis)
    def fight_good(self, other_avenger):
        CockyAvenger.fight_evil(self)
```

Some edge cases may cause a recursion error. Can you find these edge cases? How would you fix it?