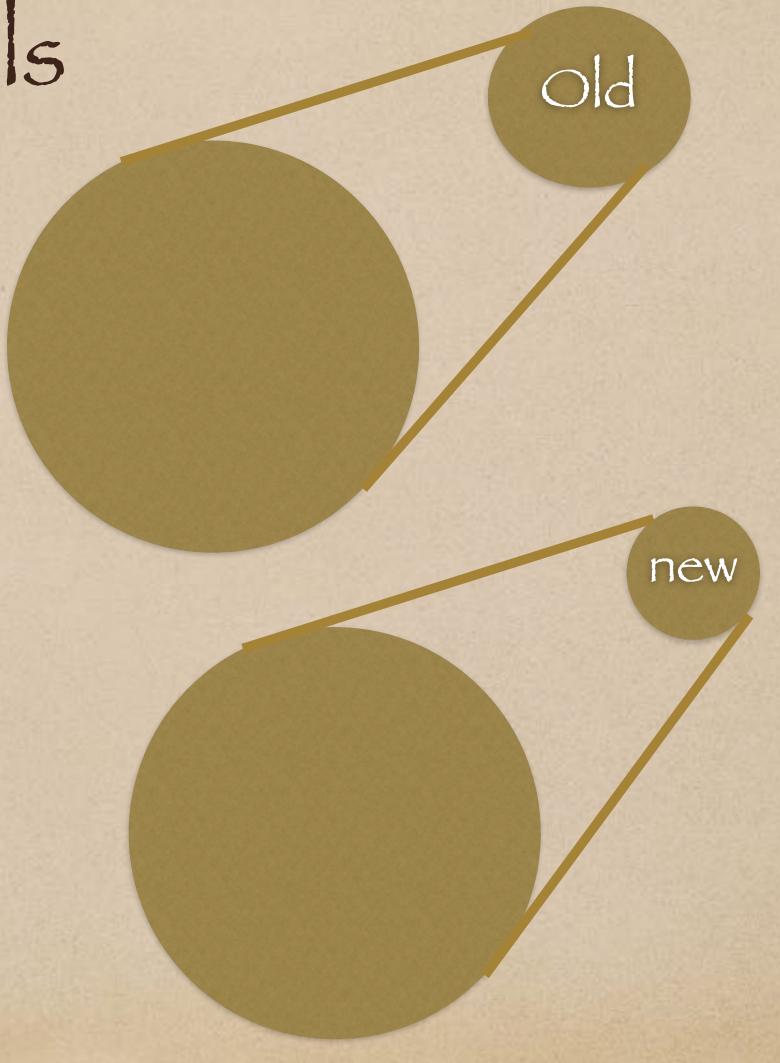# New Alternator
New Wheels

- Smaller wheels means higher RPM's

- Tachometer is now wrong

  - How far wrong?

- The old wheel was ~3.5". New wheel is ~2.5"

```
>>> 3.5/2.5
1.4
>>> 1/_
0.7142857142857143
```

Old

new

Use Case

- Given RPM on the tach, what's the real RPM of the engine?

```
def eng(r: float) -> float:
    return r/1.4
```

- Use it like this:

```
>>> eng(2100)
1500.0
```

- Okay. Tach says 2100, engine (theoretically) spinning at 1500.