

BIS 420 PROGRAMMING FOR DATA SCIENCE
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CHAPTER 18 EXERCISE 18.1
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Write a `__cmp__` method for Time objects. Hint: you can use tuple comparison, but you also might consider using integer subtraction.

class Time:

```
def __init__(self, hour=0, minute=0, second=0):
```

```
    self.hour = hour
```

```
    self.minute = minute
```

```
    self.second = second
```

```
def time_to_int(self):
```

```
    return self.hour * 3600 + self.minute * 60 + self.second
```

```
def cmp(self, other):
```

```
    return (self.time_to_int() > other.time_to_int()) - (self.time_to_int() < other.time_to_int())
```

```
t1 = Time(10, 30, 0)
```

```
t2 = Time(9, 45, 0)
```

```
print(t1.cmp(t2))
```

```
print(t2.cmp(t1))
```

```
print(t1.cmp(t1))
```

```
class Time:
    def __init__(self, hour=0, minute=0, second=0):
        self.hour = hour
        self.minute = minute
```

```
        self.second = second

    def time_to_int(self):
        return self.hour * 3600 + self.minute * 60 + self.second

    def cmp(self, other):
        return (self.time_to_int() > other.time_to_int()) - (self.time_to_int() <
other.time_to_int())

t1 = Time(10, 30, 0)
t2 = Time(9, 45, 0)

print(t1.cmp(t2))
print(t2.cmp(t1))
print(t1.cmp(t1))
```