Meal Time

Suppose that you're in a country where it's customary to eat breakfast between 7:00 and 8:00, lunch between 12:00 and 13:00, and dinner between 18:00 and 19:00. Wouldn't it be nice if you had a program that could tell you what to eat when?

In meal.py, implement a program that prompts the user for a time and outputs whether it's breakfast time, lunch time, or dinner time. If it's not time for a meal, don't output anything at all. Assume that the user's input will be formatted in 24-hour time as #:## or ##:##. And assume that each meal's time range is inclusive. For instance, whether it's 7:00, 7:01, 7:59, or 8:00, or anytime in between, it's time for breakfast.

Structure your program per the below, wherein convert is a function (that can be called by main) that converts time, a str in 24-hour format, to the corresponding number of hours as a float. For instance, given a time like "7:30" (i.e., 7 hours and 30 minutes), convert should return 7.5 (i.e., 7.5 hours).

```
def main():
...

def convert(time):
...
```

Hints

Recall that a str comes with quite a few methods,

per <u>docs.python.org/3/library/stdtypes.html#string-methods</u>, including split, which separates a str into a sequence of values, all of which can be assigned to variables at once. For instance, if time is a str like "7:30", then

```
hours, minutes = time.split(":")
```

will assign "7" to hours and "30" to minutes.

• Keep in mind that there are 60 minutes in 1 hour. to make a file called meal.py where you'll write your program.

How to Test

Here's how to test your code manually:

 Run your program with python meal.py. Type 7:00 and press Enter. Your program should output:

breakfast time

• Run your program with python meal.py. Type 7:30 and press Enter. Your program should output:

breakfast time

• Run your program with python meal.py. Type 12:42 and press Enter. Your program should output

lunch time

• Run your program with python meal.py. Type 18:32 and press Enter. Your program should output

dinner time

 Run your program with python meal.py. Type 11:11 and press Enter. Your program should output nothing.

Demo

```
$ python meal.py
What time is it? 7:00
breakfast time
$ python meal.py
What time is it? 7:30
breakfast time
$ python meal.py
What time is it? 8:01
$ python meal.py
What time is it? 18:01
dinner time
$ $ \blacksquare
$ \blacksq
```

Recorded with asciinema