

Week 2 - Mysore Pak Cookbook

You're going to write some code to help you cook mouth watering Mysore Paks from your favorite cookbook.

You have five tasks, all related to cooking your recipe.

1. Define expected cooking time in minutes
2. Calculate remaining cooking time in minutes
3. Calculate preparation time in minutes
4. Calculate total cooking time (preparation + cooking time) in minutes
5. Update the recipe with notes. Go back through the recipe, adding notes and documentation

You're going to write some code to help you cook mouth watering Mysore Paks from your favorite cookbook.

1. Define expected cooking time in minutes

Define an `EXPECTED_COOK_TIME` constant that returns how many minutes the Mysore Pak should spend in the cooking vessel. According to your cookbook, the sweet needs around 40 minutes cooking time:

```
>>> mysorepak.EXPECTED_COOK_TIME
40
```

2. Calculate remaining cooking time in minutes

Implement the `cooking_time_remaining()` function that takes the actual minutes passed since start of cooking as an argument and returns how many minutes the Mysore Pak still needs to cook based on the `EXPECTED_COOK_TIME`.

```
>>> cooking_time_remaining(30)
10
```

3. Calculate preparation time in minutes

Preparation time is the time spent before the cooking on fire begins. Implement the `preparation_time_in_minutes()` function that takes the number of pieces you want to make as an argument. This function returns how many minutes you would preparing the ingredients for making those many Mysore Paks. Assume that a batch of 10 takes 5 minutes to prepare.

Assume: number of pieces is a perfect multiple of 10 always

```
>>> preparation_time_required_in_minutes(20)
10
```

4. Calculate the number of minutes remaining

Implement the `remaining_time_in_minutes()` function that has two parameters: `number_of_pieces` (the number of Mysore Pak pieces being prepared) and `elapsed_time` (the number of minutes elapsed till now). This function returns the number of minutes remaining till the Mysore Paks are fully done.

```
>>> remaining_time_in_minutes(20, 25)
25
```

5. Update the recipe with notes. Go back through the recipe, adding notes and documentation.

```
def remaining_time_in_minutes(number_of_pieces, elapsed_time):
    """
    Return remaining cooking time.

    This function takes two input parameters: number of Mysore Pak pieces and
```

```

time elapsed till now.
    The function returns the remaining time for the Mysore Paks to be ready
    """

```

6. Error Checking.

num_pieces cannot be 0, or negative

If num_pieces is input as 0 or negative, raise the following error

if num_pieces < 1:

```

    raise ValueError("Number of pieces should be greater than Zero.")

```

Cookbook Template (cookbook.py)

```

'''
CS101. W2 - Numbers.
The Mysore Pak Cookbook
'''

# insert the value
EXPECTED_COOK_TIME=

def cooking_time_remaining(elapsed_cooking_time):
    """Calculate the cooking time remaining.

    :param elapsed_cooking_time: int cooking time already elapsed.
    :return: int remaining cooking time derived from 'EXPECTED_COOK_TIME'.

    Function that takes the actual minutes the Mysore Pak has been in the cooking pan
    on fire as an argument and returns how many minutes the sweet still needs to cook
    based on the `EXPECTED_COOK_TIME`.
    """

    pass

def preparation_time_required_in_minutes(num_pieces):
    """
    Calculate preparation time for the given number of pieces
    Preparation time is (num_pieces // BATCH_SIZE) * PREPARATION_TIME

    Assumption: num_pieces % 10 == 0 always
    """

    pass

def remaining_time_in_minutes(num_pieces, elapsed_time):
    """
    Two parameters:
    num_pieces: number of Mysore Pak pieces being prepared
    elapsed_cooking_time: the number of minutes elapsed from start till now

    Returns the number of minutes remaining till all the
    Mysore Paks are fully done.
    """
    pass

```

Test Cases

Function	Inputs	Output	Remarks
EXPECTED_COOK_TIME		40	Constant declared or not?
cooking_time_remaining	25	15	
cooking_time_remaining	0	40	

preparation_time_required_in_minutes	40	20	
preparation_time_required_in_minutes	0	ValueError	Zero pieces not allowed
remaining_time_in_minutes	20, 17	33	
remaining_time_in_minutes	20, 100	0	No waiting if elapsed time is larger than cooking time