

Assignment

Functions

Problem 1: Score

Let's say that every day in JomaClass (fictional school) you get a quiz. You can either get the correct answer, the wrong answer or not do the quiz at all because you slept through your alarm and didn't show up to class. Each of them will have a different score:

- Correct answer: 2 points
- Wrong answer: 1 point
- Didn't show up: 0 points

Write a function that produces your final score as a percentage given:

- `total`: the number of quizzes
- `correct`: the number of quizzes you correctly answered
- `wrong`: the number of quizzes you answered incorrectly.

```
def score(total, correct, wrong):  
    # your code here  
    return
```

Here is what the output should look like:

```
> score(20, 20, 0)
100.0 # because you got perfect score
> score(20, 15, 0)
75.0 # Because you got 75% of them correct and you didn't show up to the
25%
> score(20, 15, 5) # ( 15 * 2 + 5 * 1 ) / (20 * 2)
87.5
> score(20, 10, 5)
62.5
> score(20, 0, 20)
50.0
```

You can only use numbers and number operators:

- +
- -
- *
- /
- min
- max

You cannot use if else statements, lists, recursion, or booleans.

Problem 2 (Challenge): Score of best 75% days

The same question as previously, however, we only take your best 75% days to account for sick days. No one is ever healthy every day. That means that even if they didn't get every question correct, as long as they got 75% of the questions correct, they will get 100%. See the example outputs below.

Write a function that produces your final score as a percentage given:

- **total**: the number of quizzes
- **correct**: the number of quizzes you correctly answered
- **wrong**: the number of quizzes you answered incorrectly.

```
def score75(total, correct, wrong):  
    # your code here  
    return
```

Here is what the output should look like:

```
> score75(20, 20, 0)
100.0 # because you got a perfect score
> score75(20, 15, 0)
100.0 # because you got 75% of the questions correctly, even if you didn't
show up for 5
> score75(20, 15, 5) # again we only take your top 75%
100.0
> score75(20, 10, 5)
83.33333333333334
> score75(20, 0, 20)
50.0
```

You can only use numbers and number operators:

- +
- -
- *
- /
- min
- max

You cannot use if else statements, lists, recursion, or booleans.

For an extra challenge, don't even use variables. Just have one return statement.