Coding Solutions

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Some may think:
The tech industry is desperately trying to hire computer programmers in California
The tech every industry is desperately trying to hire computer programmers in California everywhere.
Some may think:
Computer science is just about learning technology
Computer science is just about learning technology.

Computer science is about logic, problem solving, and creativity.
Objective

Students will demonstrate their knowledge of introductory computer programming principles using Python 3
Why Python?

- Get started quicker
- Concepts over syntax
- One of the top 5 programming languages
Repl.it

- Online compiler
- Browser and internet access
- No additional software needed
- Python 3
# Give instructions to user
print('Enter 2 integers')

# Ask user for 2 inputs
int1 = input()
int2 = input()

# Add up the integers

# Find the product

# find of the power

Instructions from your teacher:

Prompt the user to input 2 integers and output the following:
- The Sum of the integers
- The Product of the integers
- The first integer to the power of the second integer.

Enter 2 integers:
2
3
The sum of 2 and 3 is 5.
The product of 2 and 3 is 6.
2 to the power 3 is 8.
Competition Overview

- **Technical Challenges**
  - Debug
  - Coding
- **Time limit: 60 Minutes**
  - For entire challenge not each
- **Pair Programming, no more, no less**
- **Points are earned for each final test passed**
- **Tiebreaker: Order of submission**
- **Preparing students for future opportunities**
Competition Logistics

- Student accounts
- Both students must be present
- Pairs designate account for MESA Day
- At least one individual must have complete 75% of assignments
- Program testing is automated
  - Formatting will be important
Debug

- Teams are provided an incomplete program
- Fix the code as needed to the desired output
- Errors:
  - Syntax
  - Missing operators
  - Misspelling
  - Case sensitivity
  - etc...
Technical Test

- Program a solution for the given prompt
- Follow the prompt closely
- Test cases and final testing differ
  - Test cases, students can test their code for given solutions
  - Final testing, their code is tested against a different set of inputs
- Code should be flexible
  - Hard coded solutions unlikely to pass tests run by the proctors
The UI
Create an account

1. Sign up to repl.it [https://repl.it/signup](https://repl.it/signup)
   a. A personal google account recommended to use as your login, click the G icon.
Classroom Link

http://tiny.cc/mesasmart19
# Use the print function

Code Goes here

Assignment/Coding Challenge

Sample Output

Output results from above
Assignment

MESA Day

Tiebreaker

```python
a = int(input())
b = int(input())
c = int(input())

if a > b:
    if b < c:
        print(b)
    else:
        print(c)
elif a < c:
    print(a)
else:
    print(c)
```

**Statement**

Given three integers, print the least of them.

**Example input**

```
5
3
7
```

**Example output**

```
3
```

**Theory**

If you don't know how to start solving this assignment, please, review a theory for this lesson:

https://snakify.org/lessons/if_then_else_conditions/

You may also try step-by-step theory chunks:

https://snakify.org/lessons/if_then_else_conditions/steps/1/
3.8. If/else: Minimum of three numbers

```python
a = int(input())
b = int(input())
c = int(input())

if a > b:
    if b < c:
        print(b)
    else:
        print(c)

elif a < c:
    print(a)
else:
    print(c)
```

Assignment tests
passed all tests

1
2
3
4
We change the > to a <

Program no longer works
1 - details

Failure reason: Output mismatch

Teacher's input:

```
a = int(input())
b = int(input())
c = int(input())
```

```
if a < b:
    if b < c:
        print(b)
    else:
        print(c)
elif a < c:
    print(a)
else:
    print(c)
```

Teacher expected to see:

```
3
```

Your output:

```
5
```

Difference:

```
3
```