

- ✓ All
-
- OVERALL
- Examples-Challenges
- Parsons Problems

Select which type of resource progress is displayed in the grids (Examples-Challenges and Parsons Problems). "All" displays resources in different rows. "OVERALL" shows only one row with the average across resources

Resource

Me

OVERALL	Variables and Operations	If-Else	Boolean Expressions	While Loops	For Loops	Functions	Lists	Strings	Dictionary	Values and references	Exceptions	File handling	Classes and objects
<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
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Click in a topic cell to display the activities inside (examples and challenges, parsons)

Help explains the colors (darker means more progress)



This activity (1st example-challenge on topic "Variables and Operations") is displayed after clicking in the cell

Examples-Challenges

Parsons Problems

close

Topic: Variables and Operations · Activity: Unit Converter

<

Example: Celsius To Fahrenheit Conversion

>

Challenge

Me!

Construct a program that computes the Fahrenheit equivalent of an input Celsius value using the formula $F = (9/5)C + 32$. The input Celsius value is an integer.

EXPLAIN THE PROGRAM

```
1 #Step 1: Assign initial values to the variables which we need for this program
2 base = 32
3 conversion_factor = 9 / 5
4 #Step 2: Read the input Celsius value
5 text = input("Enter the Celsius value: ")
6 celsius_temp = int(text)
7 #Step 3: Compute the Fahrenheit equivalent of the Celsius value
8 fahrenheit_temp = celsius_temp * conversion_factor + base
9 print("Celsius Temperature:", celsius_temp)
10 print("Fahrenheit Equivalent:", fahrenheit_temp)
```

Close window

Click to see challenge(s)

Topic: Variables and Operations • Activity: Unit Converter

Example: Celsius To Fahrenheit Conversion

Construct a program that computes the Fahrenheit equivalent of an input Celsius value using the formula $F = (9/5)C + 32$. The input Celsius value is an integer.

Back

Challenge Me!

EXPLAIN THE PROGRAM

```
1 #Step 1: Assign initial values to the variables which we need for this program
2 base = 32
3 conversion_factor = 9 / 5
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5 text = input("Enter the Celsius value: ")
6 celsius_temp = int(text)
7 #Step 3: Compute the Fahrenheit equivalent of the Celsius value
8 fahrenheit_temp = celsius_temp * conversion_factor + base
9 print("Celsius Temperature:", celsius_temp)
10 print("Fahrenheit Equivalent:", fahrenheit_temp)
```

Click on a ? to view an explanation for that line

Close window

Start viewing explanations from line 1 and check explanations of the previous/next lines sequentially using **previous/next** buttons

Explanations

PREVIOUS NEXT

We need to convert the input text to its integer representation. For this purpose, we use the conversion function `int()`.

PREVIOUS ADDITIONAL DETAILS

Click to decrease/increase indentation of the line

Click to see hint for the incorrect line in red

Topic: Variables and Operations • Activity: Unit Converter

Challenge: Fahrenheit to Celsius Conversion

Construct a program that computes the Celsius equivalent of an input Fahrenheit value using the formula $C = (F - 32) (5/9)$. The input Fahrenheit value is an integer.

Back

Drag a tile to each missing field to construct this program.

```
1 #Step 1: Assign initial values to the variables which we need for this program
2 base = 32
3
4 #Step 2: Read the input Fahrenheit value
5 text = input("Enter the Fahrenheit value: ")
6 fahrenheit_temp = int(text)
7 #Step 3: Compute the Celsius equivalent of the Fahrenheit value
8
9 print("Fahrenheit Temperature:", fahrenheit_temp)
10 print("Celsius Equivalent:", celsius_temp)
```

Drag a tile from here

CHECK

`celsius_temp = (base - fahrenheit_temp) * conversion_factor`

`conversion_factor = 5 / 9`

`5 / 9 = conversion_factor`

`celsius_temp = (fahrenheit_temp - base) * conversion_factor`

`5 // 9 = conversion_factor`

Close window

Drag a tile from the list of tiles to each missing field

Topic: Variables and Operations • Activity: Unit Converter

Challenge: Fahrenheit to Celsius Conversion

Construct a program that computes the Celsius equivalent of an input Fahrenheit value using the formula $C = (F - 32) (5/9)$. The input Fahrenheit value is an integer.

Back

Drag a tile to each missing field to construct this program.

```
1 #Step 1: Assign initial values to the variables which we need for this program
2 base = 32
3 conversion_factor = 5 / 9
4 #Step 2: Read the input Fahrenheit value
5 text = input("Enter the Fahrenheit value: ")
6 fahrenheit_temp = int(text)
7 #Step 3: Compute the Celsius equivalent of the Fahrenheit value
8 celsius_temp = (base - fahrenheit_temp) * conversion_factor
9 print("Fahrenheit Temperature:", fahrenheit_temp)
10 print("Celsius Equivalent:", celsius_temp)
```

Incorrect. Try Again!

line 8 is incorrect

CLEAR SHOW ME HINT

Drag a tile from here

CHECK

Close window

Click to check the answer