

# Can the TypeError “unsupported operand type(s) for -: ‘str’ and ‘int’” be fixed?

Authored by  
**stats writer**

June 29, 2024

## RECOMMENDED CITATION

stats writer (2024). *Can the TypeError “unsupported operand type(s) for -: ‘str’ and ‘int’” be fixed?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=158462>

The TypeError "unsupported operand type(s) for -: 'str' and 'int'" occurs when attempting to perform a mathematical operation between a string and an integer. This error can be fixed by ensuring that both operands are of the same data type, either by converting the string to an integer or vice versa. Additionally, it is important to check the data types of all variables and inputs to avoid this error.

## **Fix: TypeError: unsupported operand type(s) for -: 'str' and 'int'**

**One error you may encounter when using Python is:**

**TypeError: unsupported operand type(s) for -: 'str' and 'int'**

**This error occurs when you attempt to perform subtraction with a string variable and a numeric variable.**

**The following example shows how to address this error in practice.**

**How to Reproduce the Error**

**Suppose we have the following pandas DataFrame:**

```
import pandas as pd  
  
#create DataFrame  
df = pd.DataFrame({'team': ,
```

```
'points_for': ,  
'points_against': })
```

```
#view DataFrame
```

```
print(df)
```

```
team points_for points_against
```

```
0 A 18 5
```

```
1 B 22 7
```

```
2 C 19 17
```

```
3 D 14 22
```

```
4 E 14 12
```

```
5 F 11 9
```

```
6 G 20 9
```

```
7 H 28 4
```

```
#view data type of each column  
print(df.dtypes)
```

```
team object
```

```
points_for object
```

```
points_against int64
```

```
dtype: object
```

Now suppose we attempt to subtract the `points_against` column from the `points_for` column:

```
#attempt to perform subtraction  
df = df.points_for - df.points_against
```

**TypeError: unsupported operand type(s) for -: 'str' and 'int'**

**We receive a TypeError because the points\_for column is a string while the points\_against column is numeric.**

**In order to perform subtraction, both columns must be numeric.**

**How to Fix the Error**

**To resolve this error, we can use .astype(int) to convert the points\_for column to an integer before performing the subtraction:**

```
#convert points_for column to integer
```

```
df = df.astype(int)
```

```
#perform subtraction
```

```
df = df.points_for - df.points_against#view updated
```

```
DataFrame
```

```
print(df)
```

**team points\_for points\_against diff**

**0 A 18 5 13**

**1 B 22 7 15**

**2 C 19 17 2**

**3 D 14 22 -8**

**4 E 14 12 2**

**5 F 11 9 2**

**6 G 20 9 11**

**7 H 28 4 24**

**#view data type of each column**

**print(df.dtypes)**

**team object**

**points\_for int32**

**points\_against int64**

**diff int64**

**dtype: object**

**Notice that we don't receive an error because both columns we used for the subtraction are numeric columns.**

**Additional Resources**

**The following tutorials explain how to fix other common errors in Python:**

ARABPSYCHOLOGY.COM