Reverse an integer

```python
def reverse_integer(n):
    sign = -1 if n < 0 else 1
    return sign * int(str(abs(n))[::-1])
print(reverse_integer(123))
print(reverse_integer(-456))
```

```
321
-654
```

```python
#without typecasting
def reverse(num):                    #912
    result=0
    while num!=0:                    #912!=0
        rem =num%10                  #2
        result = result*10 +rem   #2
        num = num//10                #91
    return result

print(reverse(912))
```

```
219
```

```python
#without typecasting Palindrome
def palindrome(num):
    original = num
    result=0
    while num!=0:
        rem =num%10
        result = result*10 +rem
        num = num//10
    return original == num

print(palindrome(132))
```

```
False
```

```
pip install -U notebook-as-pdf
```

```
Collecting notebook-as-pdf
  Downloading notebook_as_pdf-0.5.0-py3-none-any.whl.metadata (2.4 kB)
Requirement already satisfied: nbconvert in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from notebook-as-
pdf) (7.16.4)
Collecting pyppeteer (from notebook-as-pdf)
  Downloading pyppeteer-2.0.0-py3-none-any.whl.metadata (7.1 kB)
Collecting PyPDF2 (from notebook-as-pdf)
  Downloading pypdf2-3.0.1-py3-none-any.whl.metadata (6.8 kB)
Requirement already satisfied: beautifulsoup4 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
```

```
nbconvert->notebook-as-pdf) (4.12.3)
Requirement already satisfied: bleach!=5.0.0 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (6.1.0)
Requirement already satisfied: defusedxml in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from nbconvert-
>notebook-as-pdf) (0.7.1)
Requirement already satisfied: jinja2>=3.0 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from nbconvert-
>notebook-as-pdf) (3.1.4)
Requirement already satisfied: jupyter-core>=4.7 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (5.7.2)
Requirement already satisfied: jupyterlab-pygments in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (0.3.0)
Requirement already satisfied: markupsafe>=2.0 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (2.1.5)
Requirement already satisfied: mistune<4,>=2.0.3 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (3.0.2)
Requirement already satisfied: nbclient>=0.5.0 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (0.10.0)
Requirement already satisfied: nbformat>=5.7 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (5.10.4)
Requirement already satisfied: packaging in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from nbconvert-
>notebook-as-pdf) (24.0)
Requirement already satisfied: pandocfilters>=1.4.1 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (1.5.1)
Requirement already satisfied: pygments>=2.4.1 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (2.18.0)
Requirement already satisfied: tinycss2 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from nbconvert-
>notebook-as-pdf) (1.3.0)
Requirement already satisfied: traitlets>=5.1 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbconvert->notebook-as-pdf) (5.14.3)
Collecting appdirs<2.0.0,>=1.4.3 (from pyppeteer->notebook-as-pdf)
  Downloading appdirs-1.4.4-py2.py3-none-any.whl.metadata (9.0 kB)
Requirement already satisfied: certifi>=2023 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer->notebook-as-pdf) (2024.6.2)
Collecting importlib-metadata>=1.4 (from pyppeteer->notebook-as-pdf)
```

```
  Downloading importlib_metadata-8.5.0-py3-none-any.whl.metadata (4.8
kB)
Collecting pyee<12.0.0,>=11.0.0 (from pyppeteer->notebook-as-pdf)
  Downloading pyee-11.1.1-py3-none-any.whl.metadata (2.8 kB)
Collecting tqdm<5.0.0,>=4.42.1 (from pyppeteer->notebook-as-pdf)
  Downloading tqdm-4.66.5-py3-none-any.whl.metadata (57 kB)
     ------------------------------------- 0.0/57.6 kB ? eta
-:--:--
     -------------------- ----------------- 30.7/57.6 kB ? eta
-:--:--
     -------------------------- ---------- 41.0/57.6 kB 393.8 kB/s
eta 0:00:01
     -------------------------- ---------- 41.0/57.6 kB 393.8 kB/s
eta 0:00:01
     -------------------------- ---------- 41.0/57.6 kB 393.8 kB/s
eta 0:00:01
     ------------------------------- ---- 51.2/57.6 kB 175.0 kB/s
eta 0:00:01
     ------------------------------------- 57.6/57.6 kB 189.5 kB/s
eta 0:00:00
Collecting urllib3<2.0.0,>=1.25.8 (from pyppeteer->notebook-as-pdf)
  Downloading urllib3-1.26.20-py2.py3-none-any.whl.metadata (50 kB)
     ------------------------------------- 0.0/50.1 kB ? eta
-:--:--
     ------------------------------------- 50.1/50.1 kB 2.7 MB/s
eta 0:00:00
Collecting websockets<11.0,>=10.0 (from pyppeteer->notebook-as-pdf)
  Downloading websockets-10.4.tar.gz (84 kB)
     ------------------------------------- 0.0/84.9 kB ? eta
-:--:--
     --------------------------- ---------- 61.4/84.9 kB 3.2 MB/s
eta 0:00:01
     ------------------------------------- 84.9/84.9 kB 956.9 kB/s
eta 0:00:00
  Installing build dependencies: started
  Installing build dependencies: finished with status 'done'
  Getting requirements to build wheel: started
  Getting requirements to build wheel: finished with status 'done'
  Preparing metadata (pyproject.toml): started
  Preparing metadata (pyproject.toml): finished with status 'done'
Requirement already satisfied: six>=1.9.0 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from bleach!=5.0.0-
>nbconvert->notebook-as-pdf) (1.16.0)
Requirement already satisfied: webencodings in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from bleach!=5.0.0-
>nbconvert->notebook-as-pdf) (0.5.1)
Collecting zipp>=3.20 (from importlib-metadata>=1.4->pyppeteer-
>notebook-as-pdf)
  Downloading zipp-3.20.2-py3-none-any.whl.metadata (3.7 kB)
```

```
Requirement already satisfied: platformdirs>=2.5 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
jupyter-core>=4.7->nbconvert->notebook-as-pdf) (4.2.2)
Requirement already satisfied: pywin32>=300 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from jupyter-
core>=4.7->nbconvert->notebook-as-pdf) (306)
Requirement already satisfied: jupyter-client>=6.1.12 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
nbclient>=0.5.0->nbconvert->notebook-as-pdf) (8.6.2)
Requirement already satisfied: fastjsonschema>=2.15 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbformat>=5.7->nbconvert->notebook-as-pdf) (2.19.1)
Requirement already satisfied: jsonschema>=2.6 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
nbformat>=5.7->nbconvert->notebook-as-pdf) (4.22.0)
Collecting typing-extensions (from pyee<12.0.0,>=11.0.0->pyppeteer-
>notebook-as-pdf)
  Using cached typing_extensions-4.12.2-py3-none-any.whl.metadata (3.0
kB)
Requirement already satisfied: colorama in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from
tqdm<5.0.0,>=4.42.1->pyppeteer->notebook-as-pdf) (0.4.6)
Requirement already satisfied: soupsieve>1.2 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
beautifulsoup4->nbconvert->notebook-as-pdf) (2.5)
Requirement already satisfied: attrs>=22.2.0 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
jsonschema>=2.6->nbformat>=5.7->nbconvert->notebook-as-pdf) (23.2.0)
Requirement already satisfied: jsonschema-specifications>=2023.03.6 in
c:\users\arfam\appdata\local\programs\python\python312\lib\site-
packages (from jsonschema>=2.6->nbformat>=5.7->nbconvert->notebook-as-
pdf) (2023.12.1)
Requirement already satisfied: referencing>=0.28.4 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
jsonschema>=2.6->nbformat>=5.7->nbconvert->notebook-as-pdf) (0.35.1)
Requirement already satisfied: rpds-py>=0.7.1 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
jsonschema>=2.6->nbformat>=5.7->nbconvert->notebook-as-pdf) (0.18.1)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
jupyter-client>=6.1.12->nbclient>=0.5.0->nbconvert->notebook-as-pdf)
(2.9.0.post0)
Requirement already satisfied: pyzmq>=23.0 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from jupyter-
client>=6.1.12->nbclient>=0.5.0->nbconvert->notebook-as-pdf) (26.0.3)
Requirement already satisfied: tornado>=6.2 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from jupyter-
client>=6.1.12->nbclient>=0.5.0->nbconvert->notebook-as-pdf) (6.4.1)
Downloading notebook_as_pdf-0.5.0-py3-none-any.whl (6.5 kB)
```

```
Downloading pypdf2-3.0.1-py3-none-any.whl (232 kB)
   ---------------------------------------- 0.0/232.6 kB ? eta -:--:--
   - -------------------------------------- 10.2/232.6 kB ? eta
-:--:--
   - -------------------------------------- 10.2/232.6 kB ? eta
-:--:--
   ------ --------------------------------- 41.0/232.6 kB 326.8 kB/s
eta 0:00:01
   ---------- ----------------------------- 61.4/232.6 kB 363.1 kB/s
eta 0:00:01
   ----------- ---------------------------- 71.7/232.6 kB 357.2 kB/s
eta 0:00:01
   ----------------- ---------------------- 112.6/232.6 kB 435.7 kB/s
eta 0:00:01
   ----------------- ---------------------- 112.6/232.6 kB 435.7 kB/s
eta 0:00:01
   ------------------ --------------------- 122.9/232.6 kB 359.9 kB/s
eta 0:00:01
   ---------------------- ----------------- 143.4/232.6 kB 355.0 kB/s
eta 0:00:01
   ---------------------- ----------------- 143.4/232.6 kB 355.0 kB/s
eta 0:00:01
   --------------------------- ------------ 174.1/232.6 kB 349.3 kB/s
eta 0:00:01
   ----------------------------- ---------- 194.6/232.6 kB 357.2 kB/s
eta 0:00:01
   ------------------------------- -------- 204.8/232.6 kB 355.7 kB/s
eta 0:00:01
   --------------------------------- - 225.3/232.6 kB 372.0 kB/s
eta 0:00:01
   ---------------------------------------- 232.6/232.6 kB 364.5 kB/s
eta 0:00:00
Downloading pyppeteer-2.0.0-py3-none-any.whl (82 kB)
   ---------------------------------------- 0.0/82.9 kB ? eta -:--:--
   ------------- -------------------------- 30.7/82.9 kB 640.0 kB/s
eta 0:00:01
   ---------------------------- ---------- 61.4/82.9 kB 544.7 kB/s
eta 0:00:01
   ---------------------------- ---------- 61.4/82.9 kB 544.7 kB/s
eta 0:00:01
   ---------------------------- ---------- 61.4/82.9 kB 544.7 kB/s
eta 0:00:01
   ---------------------------------------- 82.9/82.9 kB 357.9 kB/s
eta 0:00:00
Downloading appdirs-1.4.4-py2.py3-none-any.whl (9.6 kB)
Downloading importlib_metadata-8.5.0-py3-none-any.whl (26 kB)
Downloading pyee-11.1.1-py3-none-any.whl (15 kB)
Downloading tqdm-4.66.5-py3-none-any.whl (78 kB)
   ---------------------------------------- 0.0/78.4 kB ? eta -:--:--
```

```
     ----- -------------------------------- 10.2/78.4 kB ? eta -:--:--
     -------------- ----------------------- 30.7/78.4 kB 325.1 kB/s
eta 0:00:01
     ------------------ ------------------- 41.0/78.4 kB 326.8 kB/s
eta 0:00:01
     -------------------------------------- 78.4/78.4 kB 436.6 kB/s
eta 0:00:00
Downloading urllib3-1.26.20-py2.py3-none-any.whl (144 kB)
     -------------------------------------- 0.0/144.2 kB ? eta -:--:--
     ------- ------------------------------ 30.7/144.2 kB 1.3 MB/s eta
0:00:01
     --------------- -------------------- 61.4/144.2 kB 825.8 kB/s
eta 0:00:01
     --------------- -------------------- 61.4/144.2 kB 825.8 kB/s
eta 0:00:01
     ----------------- ------------------ 71.7/144.2 kB 393.8 kB/s
eta 0:00:01
     ------------------------ ------------- 92.2/144.2 kB 476.3 kB/s
eta 0:00:01
     ------------------------- ----------- 102.4/144.2 kB 393.8 kB/s
eta 0:00:01
     ------------------------------- ----- 122.9/144.2 kB 400.9 kB/s
eta 0:00:01
     ------------------------------- ----- 122.9/144.2 kB 400.9 kB/s
eta 0:00:01
     -------------------------------------- 144.2/144.2 kB 389.5 kB/s
eta 0:00:00
Downloading zipp-3.20.2-py3-none-any.whl (9.2 kB)
Downloading typing_extensions-4.12.2-py3-none-any.whl (37 kB)
Building wheels for collected packages: websockets
  Building wheel for websockets (pyproject.toml): started
  Building wheel for websockets (pyproject.toml): finished with status
'done'
  Created wheel for websockets: filename=websockets-10.4-cp312-cp312-
win_amd64.whl size=95034
sha256=f7787bd910ea86cad5d86d2054ed4462f700cb11b6e9b3470fcb350151d9611
a
  Stored in directory: c:\users\arfam\appdata\local\pip\cache\wheels\
80\cf\6d\5d7e4c920cb41925a178b2d2621889c520d648bab487b1d7fd
Successfully built websockets
Installing collected packages: appdirs, zipp, websockets, urllib3,
typing-extensions, tqdm, PyPDF2, pyee, importlib-metadata, pyppeteer,
notebook-as-pdf
  Attempting uninstall: urllib3
    Found existing installation: urllib3 2.2.1
    Uninstalling urllib3-2.2.1:
      Successfully uninstalled urllib3-2.2.1
Successfully installed PyPDF2-3.0.1 appdirs-1.4.4 importlib-metadata-
8.5.0 notebook-as-pdf-0.5.0 pyee-11.1.1 pyppeteer-2.0.0 tqdm-4.66.5
```

```
typing-extensions-4.12.2 urllib3-1.26.20 websockets-10.4 zipp-3.20.2
Note: you may need to restart the kernel to use updated packages.


[notice] A new release of pip is available: 24.0 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip

pyppeteer-install

---------------------------------------------------------------------
-----
NameError                                 Traceback (most recent call
last)
Cell In[2], line 1
----> 1 pyppeteer-install

NameError: name 'pyppeteer' is not defined

pip install pyppeteer

Requirement already satisfied: pyppeteer in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (2.0.0)
Requirement already satisfied: appdirs<2.0.0,>=1.4.3 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (1.4.4)
Requirement already satisfied: certifi>=2023 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (2024.6.2)
Requirement already satisfied: importlib-metadata>=1.4 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (8.5.0)
Requirement already satisfied: pyee<12.0.0,>=11.0.0 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (11.1.1)
Requirement already satisfied: tqdm<5.0.0,>=4.42.1 in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (4.66.5)
Requirement already satisfied: urllib3<2.0.0,>=1.25.8 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (1.26.20)
Requirement already satisfied: websockets<11.0,>=10.0 in c:\users\
arfam\appdata\local\programs\python\python312\lib\site-packages (from
pyppeteer) (10.4)
Requirement already satisfied: zipp>=3.20 in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from importlib-
metadata>=1.4->pyppeteer) (3.20.2)
Requirement already satisfied: typing-extensions in c:\users\arfam\
appdata\local\programs\python\python312\lib\site-packages (from
pyee<12.0.0,>=11.0.0->pyppeteer) (4.12.2)
Requirement already satisfied: colorama in c:\users\arfam\appdata\
local\programs\python\python312\lib\site-packages (from
```

```
tqdm<5.0.0,>=4.42.1->pyppeteer) (0.4.6)
Note: you may need to restart the kernel to use updated packages.


[notice] A new release of pip is available: 24.0 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
```