

NB1

March 5, 2021

```
[24]: print(66)
```

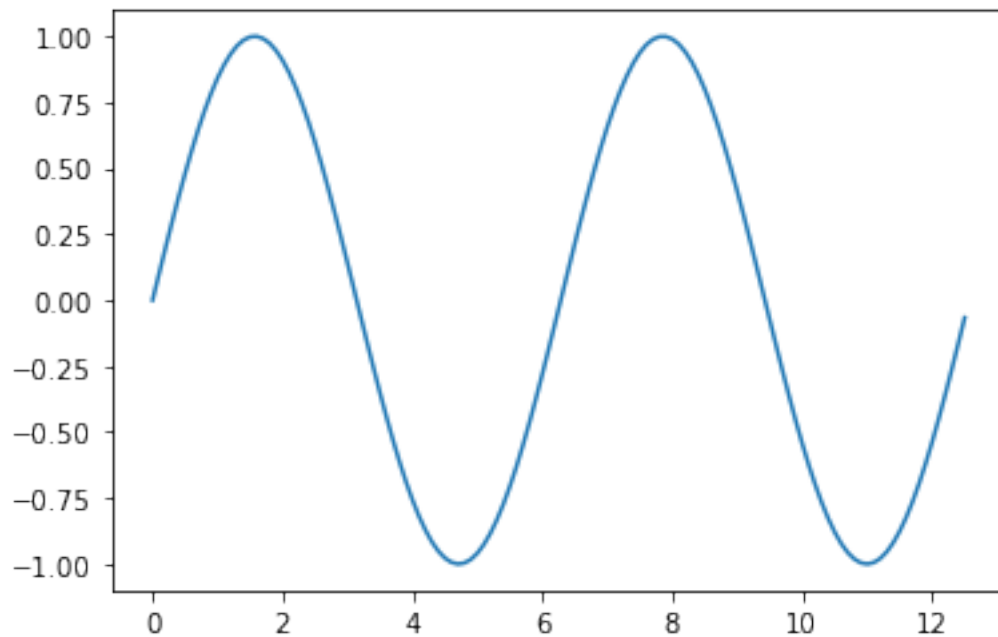
66

1 Dies ist h1

```
[25]: import altair
```

```
[26]: import altair as alt
import matplotlib.pyplot as plt
import numpy as np
x = np.arange(0,4*np.pi,0.1)    # start,stop,step
y = np.sin(x)
```

```
[27]: plt.plot(x,y)
plt.show()
```



```
[28]: source = alt.sequence(start=0, stop=12.7, step=0.1, as_='x')

alt.Chart(source).mark_line().transform_calculate(
    sin='sin(datum.x)',
    cos='cos(datum.x)'
).transform_fold(
    ['sin', 'cos']
).encode(
    x='x:Q',
    y='value:Q',
    color='key:N'
)
```

```
[28]: alt.Chart(...)
```

```
[29]: import handcalcs.render
```

```
[30]: %%render
a = 66 / 3
a
```

$$a = \frac{66}{3} = 22.0$$

$$a = 22.0$$

```
[31]: %%render
b = 3
c = a*8 + 3/b
```

$$b = 3$$

$$c = a \cdot 8 + \frac{3}{b} = 22.0 \cdot 8 + \frac{3}{3} = 177.0$$

```
[32]: c
```

```
[32]: 177.0
```

```
[33]: import handcalcs.render
from math import sqrt, pi
```

```
[34]: %%render
a = 4 / 8 * pi**3
```

$$a = \frac{4}{8} \cdot (\pi)^3 = \frac{4}{8} \cdot (3.142)^3 = 15.503$$

```
[35]: %%tex
a = 4 / 8 * pi**3

\[
\begin{aligned}
a &= \frac{4}{8} \cdot \left( \pi \right)^3 = \frac{4}{8} \cdot \\
&\left( 3.142 \right)^3 &= 15.503 \\
\end{aligned}
\]
```

```
[ ]:
```