

1.9 Exercises

1. In an article, show your work in solving the following expression for x by hand:

$$3 + \frac{x}{4} = 9$$

Show enough work that an algebra student could follow your solution. Additionally, line up all of the equals signs using the `align` environment (remember, you need the **amsmath** package).

2. Make a new article, and in it recreate the following table, centered in the page:

Symbol	Name
\mathbb{R}	Real numbers
\mathbb{Q}	Irrational numbers
\mathbb{Z}	Integers
\mathbb{C}	Complex numbers

3. Define a custom code listing style of your choice, with the language set to Python. Then, use it to format the following simple Python program, which prints a given Fibonacci number:

```
def fibonacci(n):
    if n == 1 or n == 2:
        return 1
    else:
        return fibonacci(n-1)+fibonacci(n-2)

print(fibonacci(22))
```

4. Create a document with a custom title page that at least includes a title and a subtitle, stylized so that it looks appealing to you. You can make the title the name of your favorite class, your favorite book or movie, or you can just make something up. Below are a couple examples you may take from and remix (you can also look for other templates online!):

Watership Down

A novel by Richard Adams

```
\documentclass{article}

\begin{document}
\begin{titlepage}
  {\centering\Huge\usefont{T1}{qzc}{m}{it}
   Watership Down\par}

  \vspace{5mm}

  \hfill \textit{A novel by Richard Adams}
\end{titlepage}
\end{document}
```

PALE BLUE DOT

A vision of the human future in space

Carl Sagan

```
\documentclass{article}

\begin{document}
\begin{titlepage}
  \vspace{20mm}
  \begin{center}
    {\huge \textbf{PALE BLUE DOT}}\\
    \vspace{5mm}
    A vision of the human future in space\\
    \vspace{10mm}
    {\Large Carl Sagan}
  \end{center}
\end{titlepage}
\end{document}
```