Amsmath example

ShareLaTeX Templates

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1 Introduction

$$
\begin{aligned}
A &= \frac{\pi r^2}{2} \\
&= \frac{1}{2}\pi r^2
\end{aligned}
\tag{1}
$$

2 Writing a single equation

$$
e^{\pi i} + 1 = 0 \tag{2}
$$

The beautiful equation 2 is known as the Euler equation

3 Displaying long equations

$$
\begin{aligned}
p(x) = 3x^6 + 14x^5 y + 590x^4 y^2 + 19x^3 y^3 \\
- 12x^2 y^4 - 12xy^5 + 2y^6 - a^3 b^3
\end{aligned}
$$

4 Aligning several equations

$$
\begin{aligned}
2x - 5y &= 8 \\
3x + 9y &= -12
\end{aligned}
$$

$$
\begin{aligned}
x &= y & w &= z & a &= b + c \\
2x &= -y & 3w &= \frac{1}{2}z & a &= b \\
-4 + 5x &= 2 + y & w + 2 &= -1 + w & ab &= cb
\end{aligned}
$$

5 Grouping and centering equations

$$2x - 5y = 8$$
$$3x^2 + 9y = 3a + c$$

$$cos(x) \cdot e^{-x^2/2}$$