# Section name

## 1 Fonts in math mode

We use unicode-math package to support unicode math symbols, the following is a list of some common math symbols:

- $\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa, \lambda, \mu, \nu, \xi, \pi, \rho, \sigma, \tau, \upsilon, \phi, \chi, \psi, \omega$

- $A, B, \Gamma, \Delta, E, Z, H, \Theta, I, K, \Lambda, M, N, \Xi, \Pi, P, \Sigma, T, \Upsilon, \Phi, X, \Psi, \Omega$

- $\infty, \partial, \nabla, \exists, \forall, \neg, \wedge, \vee, \implies, \iff, \subseteq, \supseteq, \cap, \cup, \setminus, \emptyset$

- $0, 1, 2, 3, 4, 5, 6, 7, 8, 9$

- $+, -, \times, \div, =, <, >, \leq, \geq$

- $a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$

- $A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$

- $\mathit{a, b, c, d, e, f, g, h, i, j, k, \ell, m, n, o, p, q, r, s, t, u, v, w, x, y, z}$

- $\mathcal{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $\mathfrak{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z}$

- $\mathbb{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $\mathsf{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z}$

- $\mathsf{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $\mathsf{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z}$

- $\mathsf{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $\mathfrak{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z}$

- $\mathfrak{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $\mathscr{A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z}$

- $a, b, c, d, e, f, g, h, i, j, k, \ell, m, n, o, p, q, r, s, t, u, v, w, x, y, z$

- **$A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$**

- **$a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$**

## 2 Theorems and definitions

There are two types of theorem environments, one is with background color, the other is without background color. The following is a list of theorem environments supported by this template:

**Definition 1** (this is a definition). test

**Proposition 2** (this is a proposition). test

*Proof.* This is a proof environment, it is used to prove theorems, propositions, lemmas, corollaries, etc. We allow to use step environments inside the proof environment, such as:

**Step 1.** This is a step environment, it is used to break down the proof into smaller steps.

**Step 2.** This is another step environment, it is used to break down the proof into smaller steps.

And the step environment should be used inside the proof environment. The proof environment will automatically end with a square box. □

**Theorem 3** (this is a theorem). test

*Proof.* This is a proof environment. The step environment is labelled in the proof environment. A new proof environment will refresh the step environment counter.

**Step 3.** Goal 1.

Proof of Goal 1.

**Step 4.** Goal 2.

Proof of Goal 2. □

**Lemma 4** (this is a lemma). test

**Corollary 5** (this is a corollary). test

**Question 6** (this is a question). test

**Conjecture 7** (this is a conjecture). test

**Example 8** (this is an example). test

**Exercise 9** (this is an exercise). test

**Remark 10** (this is a remark). test

*this is a proof.* test □

## 3 sectionlevel=section

In this mode, the section is the highest level, and usually there is only one section in the document. There is no title page, no table of contents, and no cover image. All theorem and definition environments are labelled with a unique number, and the numbering is continuous throughout the document.