

LaTeX Template

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Last Updated: May 21, 2025

Is it that you're being good to-get-her, or that you think
you're good together?

Me (inspired by “Good Together” — Shy Martin)

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§1 `mdthm` Environments

This is the color of the default **bold text**.

Definition 1.1 (Name)

This is a Definition.

Theorem 1.2 (Name)

This is a Theorem.

Lemma 1.3 (Name)

This is a Lemma.

Corollary 1.4 (Name)

This is a Corollary.

Proposition 1.5 (Name)

This is a Proposition.

Assumption 1.6 (Name)

This is an Assumption.

Conjecture 1.7 (Name). This is a Conjecture.

Fact 1.8 (Name). This is a Fact.

Question 1.9 (Name). This is a Question.

Answer 1.10 (Name). This is an Answer.

Exercise 1.11 (Name). This is an Exercise.

Hint: [1](#)

Problem 1.12 (Name). This is a Problem.

Hints: [3](#) [2](#)

Algorithm 1.13 (Name) — This is an Algorithm.

Claim 1.14 (Name) — This is a Claim.

Proof. This is a Proof. □

Example 1.15 (Name)

This is an Example.

Solution. This is a Solution. ■

Proof. This is a Proof. □

Solution. This is a Solution. ■

Proof. This is a Proof. □

Solution. This is a Solution. ■

Remark 1.16 (Name). This is a Remark.^{[a](#)}

^a This is footnote for this remark.

§2 Other Environments

Col1	Col2	Col3
1	2	3

Table 1: This is a table

- (a) First.
- (b) Second.
- First.
- Second.



Figure 1: Cool Gojo 4K Wallpaper

§3 Math Environments

$$\begin{aligned} x^2 &= \frac{2x^2}{2} \\ &= \frac{(x+1)^2 + (x-1)^2 - 2}{2}. \end{aligned}$$

$$f(x) = \begin{cases} 0, & \text{if } x \text{ is rational} \\ 1, & \text{otherwise.} \end{cases}$$

$$g(x) = \begin{cases} 0, & \text{if } x \text{ is irrational} \\ \frac{1}{q}, & \text{if } x = \frac{p}{q} \text{ where } p, q \text{ are integers with } \gcd(p, q) = 1. \end{cases}.$$

sin cos tan cosec sec cot arcsin arccos arctan arccsc arcsec arccot .

$$\nu_p(p^2) = 2 \text{ and } \text{Pow}_{\odot(ABC)}(A) = 0.$$

$$\iint_{x^2+y^2 \leq 1} (x+y) \, dx \, dy = 0.$$

$$\int_0^1 \ln(x) = -1.$$

$$\frac{d^n f}{dx^n} \frac{\partial^n f}{\partial x^n}.$$

§4 CS and ASY Environments

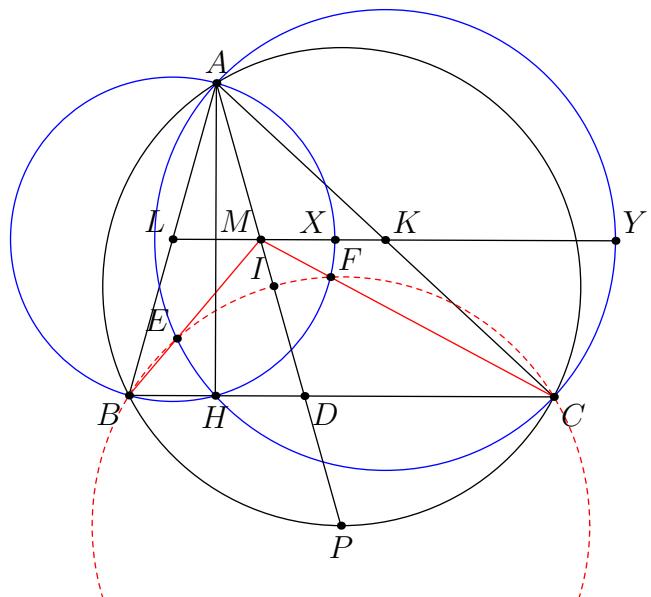


Figure 2: An asy diagram

```

1 import numpy as np
2
3 def incmatrix(genl1,genl2):
4     m = len(genl1)
5     n = len(genl2)
6     M = None #to become the incidence matrix
7     VT = np.zeros((n*m,1), int) #dummy variable
8
9     #compute the bitwise xor matrix
10    M1 = bitxormatrix(genl1)
11    M2 = np.triu(bitxormatrix(genl2),1)
12
13    for i in range(m-1):
14        for j in range(i+1, m):
15            [r,c] = np.where(M2 == M1[i,j])
16            for k in range(len(r)):
17                VT[(i)*n + r[k]] = 1;
18                VT[(i)*n + c[k]] = 1;
19                VT[(j)*n + r[k]] = 1;
20                VT[(j)*n + c[k]] = 1;
21
22            if M is None:
23                M = np.copy(VT)
24            else:
25                M = np.concatenate((M, VT), 1)

```

```
26  
27     VT = np.zeros((n*m,1), int)  
28  
29     return M
```

§5 Hints

1. First hint.
2. Second hint.
3. First hint.

§6 Bibliography

Random text for citing some document in my L^AT_EX file [**Knu97**].

References

- [**Knu97**] DONALD E. KNUTH. *The Art of Computer Programming*. Addison-Wesley, 1997
(cited p. 9)