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1 Enviroment Settings

1.1	.vimrc	
1	syntax on	
	set bs=2	
2	set ts=4 sw=4 ai sta si	
2	map<F9> :!g++ "%" -o "%:r.out" -Wall -Wshadow -O2	
2	-lm -std=c++11 && echo "==== done =====" &&	
2	"/%:r.out"	
2		
2		

2 Section 1

2.1 Hello, world

```
#include <stdio.h>
int main() {
    printf("%s\n", "Hello, world!");
    return 0;
}
```

2.2 Hello, wrold 2

Hello world again.

```
#include <stdio.h>
int main() {
    printf("%s\n", "Hello, world!");
    return 0;
}
中文測試
```

3 Math

3.1 Euler's phi function $O(n)$

1. $\gcd(x, y) = d \Rightarrow \phi(xy) = \frac{\phi(x)\phi(y)}{\phi(d)}$
2. $p \text{ is prime} \Rightarrow \phi(p^k) = p^{k-1}\phi(p)$
3. $p \text{ is prime} \Rightarrow \phi(p^k) = \phi(p^{k-1}) \times p$
4. $n = p_1^{k_1} p_2^{k_2} \dots p_m^{k_m}$
 $\Rightarrow \phi(n) = p_1^{k_1-1} \phi(p_1) p_2^{k_2-1} \phi(p_2) \dots p_m^{k_m-1} \phi(p_m)$

The End