// Program 1

#include <stdio.h>

void welcome() {

printf("Welcome to C Programming!\n");

}

int main() {

welcome();

return 0;

}

// Program 2

#include <stdio.h>

void square(int n) {

printf("%d\n", n \* n);

}

int main() {

square(5);

return 0;

}

// Program 3

#include <stdio.h>

void cube(int n) {

printf("%d\n", n \* n \* n);

}

int main() {

cube(3);

return 0;

}

// Program 4

#include <stdio.h>

void swap(int a, int b) {

int temp = a;

a = b;

b = temp;

printf("%d %d\n", a, b);

}

int main() {

swap(2, 3);

return 0;

}

// Program 5

#include <stdio.h>

void checkPrime(int n) {

int i, c = 0;

for(i = 1; i <= n; i++) {

if(n % i == 0) c++;

}

if(c == 2) printf("Prime\n");

else printf("Not Prime\n");

}

int main() {

checkPrime(7);

return 0;

}

// Program 6

#include <stdio.h>

int factorial(int n) {

int f = 1, i;

for(i = 1; i <= n; i++) f \*= i;

return f;

}

int main() {

printf("%d\n", factorial(5));

return 0;

}

// Program 7

#include <stdio.h>

void calculator(int a, int b) {

printf("Sum = %d\n", a + b);

printf("Diff = %d\n", a - b);

printf("Prod = %d\n", a \* b);

printf("Div = %d\n", a / b);

}

int main() {

calculator(10, 2);

return 0;

}

// Program 8

#include <stdio.h>

int power(int base, int exp) {

int result = 1, i;

for(i = 1; i <= exp; i++) result \*= base;

return result;

}

int main() {

printf("%d\n", power(2, 3));

return 0;

}

// Program 9

#include <stdio.h>

int isArmstrong(int n) {

int orig = n, sum = 0;

while(n > 0) {

int d = n % 10;

sum += d\*d\*d;

n /= 10;

}

return orig == sum;

}

int main() {

printf("%d\n", isArmstrong(153));

return 0;

}

// Program 10

#include <stdio.h>

int max(int a, int b, int c) {

if(a >= b && a >= c) return a;

else if(b >= a && b >= c) return b;

else return c;

}

int main() {

printf("%d\n", max(3, 7, 5));

return 0;

}