agree.c

```c
#include <cs50.h>
#include <stdio.h>

int main(){
  char c = get_char("Do you agree? ");

  if(c == 'y' || c == 'Y'){
    printf("You agree.\n");
  } else if(c == 'n' || c == 'N'){
    printf("You don't agree.\n");
  }
}
```

calculator.c

cs50_version.c

```c
#include <cs50.h>
#include <stdio.h>

int add(int a, int b);
float div(int a, int b);

int main(){
  int x = get_int("x: ");
  int y = get_int("y: ");

  printf("%i\n", add(x, y));
  printf("%.20f\n", div(x, y));
}

int add(int a, int b){
  return a + b;
}

float div(int a, int b){
  return (float) a / (float) b;
}
```

my_version.c

```c
#include <cs50.h>
#include <stdio.h>

int add(int a, int b){
  return a + b;
}

int minus(int a, int b){
  return a - b;
}

int mult(int a, int b){
  return a * b;
}

int div(int a, int b){
  return a / b;
}
```

```c
int main(){
  int a = get_int("First number: ");
  int b = get_int("Second number: ");

  int operation = get_int("(1) Add\n(2) Subtract\n(3) Multiply\n(4) Divide\n");

  if(operation == 1){
    printf("%i + %i = %i\n", a, b, add(a, b));
  } else if(operation == 2){
    printf("%i - %i = %i\n", a, b, minus(a, b));
  } else if(operation == 3){
    printf("%i x %i = %i\n", a, b, mult(a, b));
  } else if(operation == 4){
    printf("%i ÷ %i = %i\n", a, b, div(a, b));
  }
}
```

compare.c

```c
#include <cs50.h>
#include <stdio.h>

int main(){
  int x = get_int("What's x? ");
  int y = get_int("What's y? ");

  if(x < y){
    printf("x is less than y\n");
  } else if(x > y){
    printf("x is more than y\n");
  } else {
    printf("x is equal to y\n");
  }
}
```

Conditionals

if_elif.c

```c
#include <stdio.h>

int main(){
  int x = 9;
  int y = 9;

  if(x < y){
    printf("x is less than y\n");
  } else if(x > y){
    printf("x is not less than y\n");
  } else if(x == y){
    printf("x is equal to y\n");
  }
}
```

if.c

```c
#include <stdio.h>

int main(){
  int x = 0;
  int y = 9;

  if(x < y){
    printf("x is less than y\n");
  }
}
```

if_elif_optimised.c

```c
#include <stdio.h>

int main(){
  int x = 9;
  int y = 9;

  if(x < y){
    printf("x is less than y\n");
  } else if(x > y){
    printf("x is not less than y\n");
  } else {
    printf("x is equal to y\n");
```

```
  }
}
```

if_else.c

```c
#include <stdio.h>

int main(){
  int x = 9;
  int y = 0;

  if(x < y){
    printf("x is less than y\n");
  } else {
    printf("x is not less than y\n");
  }
}
```

Format Types

```c
#include <stdio.h>
#include <string.h>
typedef char* string;

int main(){
  int a = 1;
  float b = 3.14;
  char c = 'z';
  signed long int d = 1234567890L;
  string e = "hello, world";

  printf("Integer: %i\nFloat: %f\nCharacter: %c\nSigned Long Integer: %li\nString: %s\n", a,
}
```

Hello World

```c
#include <stdio.h>

int main(){
  printf("Hello, world\n");
}

// To compile, use `make [[output filename]]`
```

meow.c

```c
#include <stdio.h>

void attemptOne(){
  int i = 3;
  while(i > 0){
    printf("meow\n");
    i--;
  }
}

void attemptTwo(){
  int i = 1;
  while(i <= 3){
    printf("meow\n");
    i++;
  }
}

void attemptThree(){
  int i = 0;
  while(i < 3){
    printf("meow\n");
    i++;
  }
}

void attemptFour(){
  for(int i = 0; i < 3; i++){
    printf("meow\n");
  }
}

int main(){
  printf("Attempt One:\n");
  attemptOne();
  printf("\n");

  printf("Attempt Two:\n");
  attemptTwo();
  printf("\n");

  printf("Attempt Three:\n");
  attemptThree();
  printf("\n");
```

```c
    printf("Attempt Four:\n");
    attemptFour();
}
```

User Input

```c
#include <cs50.h>
#include <stdio.h>

int main(){
  string name = get_string("What's your name? ");
  printf("Hello, %s!\n", name);
}
```

Variables

```c
#include <stdio.h>

int main(){
  int counter = 0;
  printf("counter = %i\n", counter);
  counter++;
  printf("counter = %i\n", counter);
  counter--;
  printf("counter = %i\n", counter);
}
```