과제 08 – 1

```c
#include <stdio.h>

int main(void) {
    int num_array[10] = {1,2,3,4,5,6,7,8,9,10};

    for (int i=0; i<10; i++) {
        printf("%d ", num_array[i]);
    }

    return 0;
}
```

```
● → Tasks ./task8-1
  1 2 3 4 5 6 7 8 9 10 %
```

과제 08 – 2

```c
#include <stdio.h>

int main(void) {
    int num[5];
    int tmp;

    for (int i=0; i<5; i++) {
        printf("Enter the array value #%d: ", i+1);
        scanf("%d", &tmp);
        num[i] = tmp;
    }

    for (int j=0; j<5; j++) {
        printf("%d ", num[j]);
    }

    return 0;
}
```

```
● → Tasks ./task8-2
  Enter the array value #1: 10
  Enter the array value #2: 20
  Enter the array value #3: 30
  Enter the array value #4: 40
  Enter the array value #5: 50
  10 20 30 40 50 %
```

과제 08 – 3

```c
#include <stdio.h>

int main(void) {
    int length = 0;
    // malloc 함수로 동적 배열 생성도 가능
    int array[100];
    int tmp;

    printf("Enter the length of array: ");
    scanf("%d", &length);

    for (int i=0; i<length; i++) {
        printf("Enter the array value #%d: ", i+1);
        scanf("%d", &tmp);
        array[i] = tmp;
    }

    for (int j=0; j<length; j++) {
        printf("%d ", array[j]);
    }

    return 0;
}
```

```
● → Tasks ./task8-3
  Enter the length of array: 3
  Enter the array value #1: 10
  Enter the array value #2: 20
  Enter the array value #3: 30
  10 20 30 %
```

,

과제 08 – 4

```c
#include <stdio.h>

int main(void) {
    int array[10] = { 1, 3, -20, 1, 5, 10, 2, 5, 9, 10};
    int index = -1;

    int check = 0;
    for (int i=0; i<10; i++) {
        if (array[i] == 10 && check != 1) {
            index = i;
            check = 1;
        }
        printf("%d ", array[i]);
    }

    printf("\nIndex: %d", index);

    return 0;
}
```

```
● → Tasks ./task8-4
  9 8 2 3 0 -1 2 3 4 5
  Index: -1%
● → Tasks ./task8-4
  1 3 -20 1 5 10 2 5 9 10
  Index: 5%
```

과제 08 – 5

```c
#include <stdio.h>

int main(void) {
    int array[10] = {1,2,3,4,5,6,7,8,9,10};
    float average = 0;

    for (int i=0; i<10; i++) {
        printf("%d ", array[i]);
        average += array[i];
    }
    printf("\n%.3f", average/10.0);

    return 0;
}
```

```
➜  Tasks ./task8-5
1 2 3 4 5 6 7 8 9 10
5.500%
➜  Tasks ./task8-5
1 1 1 1 1 2 2 2 2 2
1.500%
```

과제 08 – 6

```c
#include <stdio.h>

int main(void) {
    int array[10] = {1,2,3,4,5,6,7,8,9,10};

    for (int i=0; i<10; i++) {
        printf("%d ", array[i]);
    }
    printf("\n");
    for (int i=9; i>=0; i--) {
        printf("%d ", array[i]);
    }

    return 0;
}
```

```
➜  Tasks ./task8-6
1 2 3 4 5 6 7 8 9 10
10 9 8 7 6 5 4 3 2 1 %
```

과제 08 – 7

```c
#include <stdio.h>

int main(void) {
    int length;
    float x_average = 0;
    float y_average = 0;

    printf("Enter the number of coordinates: ");
    scanf("%d", &length);

    int array[length][2];

    for (int i=0; i<length; i++) {
        printf("Enter the #%d coordinate: ", i+1);
        scanf("%d %d", &array[i][0], &array[i][1]);

        x_average += array[i][0];
        y_average += array[i][1];
    }

    printf("%.3f %.3f", x_average/length, y_average/length);


    return 0;
}
```

```
● → Tasks ./task8-7
  Enter the number of coordinates: 5
  Enter the #1 coordinate: 1 2
  Enter the #2 coordinate: 2 3
  Enter the #3 coordinate: 3 4
  Enter the #4 coordinate: 4 5
  Enter the #5 coordinate: 5 6
  3.000 4.000%
```