מטלה 3 – משפטי תנאי

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שאלה 1

```c
#include <stdio.h>
int main()
{
    int students, seats, order, remainder;
    printf("Enter number of students:\n");
    scanf("%d", &students);
    printf("Enter number of seats per spaceship:\n");
    scanf("%d", &seats);
    remainder = students % seats;
    if (students > seats && remainder == 0)
    {
        order = students / seats;
        printf("You need %d ships\n", order);
    }
        else
        {
            order = students / seats;
            order++;
            printf("You need %d ships\n", order);
        }
}
```

```
Enter number of students:
20
Enter number of seats per spaceship:
3
You need 7 ships
Program ended with exit code: 0
```

```
Enter number of students:
20
Enter number of seats per spaceship:
5
You need 4 ships
Program ended with exit code: 0
```

```
Enter number of students:
5
Enter number of seats per spaceship:
20
You need 1 ships
Program ended with exit code: 0
```

```c
#include <stdio.h>
int main()
{
    int months, addmonths, newmonth;
    printf("Please enter number of months:\n");
    scanf("%d", &months);
    if(months < 1 || months > 12)
    {
        printf("The months number have to be between 1-
        12\n");
    }
    else
    printf("Please enter number of add months:\n");
    scanf("%d", &addmonths);
    newmonth = (months + addmonths - 1) % 12 + 1;
    printf("The new months is: %d\n", newmonth);
}
```

```
Please enter number of months:
3
Please enter number of add months:
5
The new months is: 8
Program ended with exit code: 0
```

```
Please enter number of months:
3
Please enter number of add months:
10
The new months is: 1
Program ended with exit code: 0
```

```c
#include <stdio.h>
int main()
{
    int number, hundreds, units;
    printf("Enter a number of 3 digits:\n");
    scanf("%d", &number);
    hundreds = number / 100;
    units = number % 10;
    if (number > 99 &&  number < 1000)
    {
        if(number % 7 == 0)
    {
        printf("%d Seven boom!\n", number);
    if(hundreds == units)
    {
        printf("%d Is palindrom\n", number);
    }
    }
        else
    {
        printf("%.2f\n", (double)number / 7);
    }
    }
        else
        printf("illegal number entered\n");
}
```

```
Enter a number of 3 digits:
105
105 Seven boom!
Program ended with exit code: 0
```

```
Enter a number of 3 digits:
431
61.57
Program ended with exit code: 0
```

```
Enter a number of 3 digits:
161
161 Seven boom!
161 Is palindrom
Program ended with exit code: 0
```

```
Enter a number of 3 digits:
61
illegal number entered
Program ended with exit code: 0
```

```c
#include <stdio.h>
#include <math.h>
int main()
{
    int a, b, c;
    double Discriminant = 0;
    printf("Enter a 3 numbers:\n");
    scanf("%d %d %d", &a, &b, &c);
    Discriminant = pow(b, 2)-(4*a*c);
    if (Discriminant > 0)
    {
        printf("x1 = %.2f\n",((double)-b +
        sqrt(Discriminant)) / (2 * a));
        printf("x2 = %.2f\n",((double)-b -
        sqrt(Discriminant)) / (2 * a));
    }
    else if (Discriminant == 0)
        {
            printf("x = %.2f\n", (double)-b / 2 * a);
        }
    else
{
        printf("No have solution\n");
}
}
```

```
Enter a 3 numbers:
1
2
1
x = -1.00
Program ended with exit code: 0
```

```
Enter a 3 numbers:
-1
8
-16
x = 4.00
Program ended with exit code: 0
```

```
Enter a 3 numbers:
1
2
-8
x1 = 2.00
x2 = -4.00
Program ended with exit code: 0
```

```
Enter a 3 numbers:
3
12
0
x1 = 0.00
x2 = -4.00
Program ended with exit code: 0
```

```
Enter a 3 numbers:
2
4
3
No have solution
Program ended with exit code: 0
```