

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

```
int main() {
```

```
    double beginning_odometer,  
    ending_odometer, miles_traveled,  
    reimbursement_rate, reimbursement;
```

```
    printf("MILEAGE REIMBURSEMENT  
CALCULATOR\n");
```

```
    printf("Enter beginning odometer reading: ");  
    scanf("%lf", &beginning_odometer);
```

```
    printf("Enter ending odometer reading: ");  
    scanf("%lf", &ending_odometer);
```

```
    miles_traveled = ending_odometer -  
    beginning_odometer;
```

```
    reimbursement_rate = 0.35;
```

```
    reimbursement = miles_traveled *  
    reimbursement_rate;
```

```
    printf("You traveled %.1lf miles. At $0.35 per  
mile, your reimbursement is $%.2lf.\n",  
    miles_traveled, reimbursement);
```

```
    return 0;
```

```
}
```



TAB



MILEAGE REIMBURSEMENT CALCULATOR

Enter beginning odometer reading: 23

Enter ending odometer reading: 56

You traveled 33.0 miles. At \$0.35 per mile, your reimbursement is \$11.55.

[Program finished]

```

1  #include <stdio.h>
2
3  int main() {
4      double height, flow_rate, efficiency_constant,
      gravitational_constant, power_produced;
5
6      printf("HYDROELECTRIC DAM POWER
      CALCULATOR\n");
7      printf("Enter the height of the dam (in
      meters): ");
8      scanf("%lf", &height);
9
10     printf("Enter the flow rate (in cubic meters
      per second): ");
11     scanf("%lf", &flow_rate);
12
13     efficiency_constant = 0.9; // 90% efficiency
14     gravitational_constant = 9.80; // m/s^2
15
16     |
17     power_produced = (efficiency_constant *
      flow_rate * gravitational_constant * height) /
      1000000;
18
19     printf("The predicted power produced is %.
      2lf megawatts.\n", power_produced);
20
21     return 0;
22 }
23

```

HYDROELECTRIC DAM POWER CALCULATOR

Enter the height of the dam (in meters): 567

Enter the flow rate (in cubic meters per second): 20000

The predicted power produced is 100.02 megawatts.

[Program finished]


```
1  #include <stdio.h>
2
3  int main() {
4      double elapsed_time, temperature;
5      int hours, minutes;
6
7      printf("FREEZER TEMPERATURE
ESTIMATION\n");
8      printf("Enter how long it has been since the
power failure (hours and minutes): ");
9      scanf("%d %d", &hours, &minutes);
10
11     elapsed_time = hours + (minutes / 60.0); //
Convert minutes to hours
12     temperature = (4 * elapsed_time *
elapsed_time) / (elapsed_time + 2) - 20;
13
14     printf("Estimated freezer temperature after
%.2lf hours is %.2lf degrees Celsius.\n",
elapsed_time, temperature);
15
16     return 0;
17 }
18 |
19
20
```

FREEZER TEMPERATURE ESTIMATION

Enter how long it has been since the power failure (hours and minutes): 3

4

Estimated freezer temperature after 3.07 hours is -12.58 degrees Celsius.

[Program finished]

```
1 #include <stdio.h>
2
3 int main() {
4     double fahrenheit, celsius;
5
6     printf("FAHRENHEIT TO CELSIUS
7 CONVERTER\n");
8     printf("Enter temperature in degrees
9 Fahrenheit: ");
10    scanf("%lf", &fahrenheit);
11
12    celsius = (5.0 / 9.0) * (fahrenheit - 32);
13
14    printf("%.2lf degrees Fahrenheit is equal to
15    %.2lf degrees Celsius.\n", fahrenheit, celsius);
16
17    return 0;
18 }
```

FAHRENHEIT TO CELSIUS CONVERTER

Enter temperature in degrees Fahrenheit: 45

45.00 degrees Fahrenheit is equal to 7.22 degrees Celsius.

[Program finished]


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

```
int main() {
```

```
    double yard_length, yard_width,  
    house_length, house_width, yard_area,  
    grass_area, time;
```

```
    // Input the dimensions of the yard and  
    house
```

```
    printf("Enter the length of the yard (in feet): ");
```

```
    scanf("%lf", &yard_length);
```

```
    printf("Enter the width of the yard (in feet): ");
```

```
    scanf("%lf", &yard_width);
```

```
    printf("Enter the length of the house (in feet):  
");
```

```
    scanf("%lf", &house_length);
```

```
    printf("Enter the width of the house (in feet):  
");
```

```
    scanf("%lf", &house_width);
```

```
    // Calculate the area of the yard and the area  
    of the grass
```

```
    yard_area = yard_length * yard_width;
```

```
    grass_area = yard_area - (house_length *  
    house_width);
```

```
    // Calculate the time required to cut the  
    grass at 2 square feet per second
```

```
    time = grass_area / 2.0;
```

```
    printf("Time required to cut the grass: %.2f  
seconds\n", time);
```

```
    return 0;
```

```
}
```

```
Enter the length of the yard (in feet): 4567
Enter the width of the yard (in feet): 7790
Enter the length of the house (in feet): 567
Enter the width of the house (in feet): 4567
Time required to cut the grass: 16493720.50 seconds
```

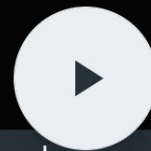
```
Program finished]
```



new*



```
2
3 int main() {
4     int m, n;
5
6     // Input values for m and n
7     printf("Enter the values for m and n (m > n):
8 ");
9     scanf("%d %d", &m, &n);
10
11    // Calculate the sides and hypotenuse
12    int side1 = m * m - n * n;
13    int side2 = 2 * m * n;
14    int hypotenuse = m * m + n * n;
15
16    // Display the Pythagorean triple
17    printf("Pythagorean Triple: (%d, %d, %d)\n",
18 side1, side2, hypotenuse);
19
20    return 0;
21 }
22
23
```



Tab

{

:

;

"

1

2

3

4

5

6

7

8

9

0

q

w

e

r

t

y

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p

a

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f

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j

k

l



z

x

c

v

b

n

m



?123

,

.



Enter the values for m and n ($m > n$): 56

23

Pythagorean Triple: (2607, 2576, 3665)

[Program finished]


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

```
 |  
#define DEMAND_CHG 35.00
```

```
#define PER_1000_CHG 1.10
```

```
#define LATE_CHG 2.00
```

```
int main() {
```

```
    int previous_meter_reading,  
    current_meter_reading;  
    double unpaid_balance;
```

```
    printf("Enter previous meter reading (in  
thousands of gallons): ");  
    scanf("%d", &previous_meter_reading);
```

```
    printf("Enter current meter reading (in  
thousands of gallons): ");  
    scanf("%d", &current_meter_reading);
```

```
    printf("Enter unpaid balance from the  
previous bill: ");  
    scanf("%lf", &unpaid_balance);
```

```
    double use_charge = (current_meter_reading  
- previous_meter_reading) * PER_1000_CHG;
```

```
    double late_charge = (unpaid_balance > 0)  
LATE_CHG : 0.0;
```



```
Enter previous meter reading (in thousands of gallons): 1234
Enter current meter reading (in thousands of gallons): 222.
Enter unpaid balance from the previous bill: Water Bill: $-1076.20

[Program finished]
```

```
1 #include <stdio.h>
2
3 #define PI 3.14159
4
5 int main() {
6     double hole_diameter, edge_diameter,
thickness, density, quantity;
7     double hole_radius, edge_radius, rim_area,
unit_weight, weight;
8
9     |
10    printf("Enter the hole diameter: ");
11    scanf("%lf", &hole_diameter);
12
13    printf("Enter the edge diameter: ");
14    scanf("%lf", &edge_diameter);
15
16    printf("Enter the thickness: ");
17    scanf("%lf", &thickness);
18
19    printf("Enter the density of material used: ");
20    scanf("%lf", &density);
21
22    printf("Enter the quantity of washers made: ")
23
24
25
26    hole_radius = hole_diameter / 2;
27    edge_radius = edge_diameter / 2;
28
29
30    rim_area = PI*(edge_radius * edge_radius) -
PI * (hole_radius * hole_radius);
```



TAB



```
Enter the hole diameter: 123
Enter the edge diameter: 124
Enter the thickness: 2345
Enter the density of material used: 56
Enter the quantity of washers made: 789
The weight of 789.000000 washers is 20099920748.735138
```

```
[Program finished]
```