Observation

① Addition

```
#include<stdio.h>;
void main();
{
    int a,b,c;
    a=2, b=2;
    c=a+b;
    printf("%d",c);
}
```

② Subtraction

```
#include<stdio.h>;
void main();
{
    int a,b,c;
    a=5,b=3;
    c=a-b;
    printf("%d",c);
}
```

③ Multiplication

```
#include<stdio.h>;
Void main();
{
    int a,b,c;
    a=2, b=3;
    c=a*b;
    printf("%d",c);
}
```

④ Division

```
#include<stdio.h>;
void main();
{
    float a,b,c;
    a=9, b=3;
    c=a/b;
    printf("%f",c);
}
```

⑤ Rectangle

```
#include<stdio.h>
void main()
{
    float l,b,area;
    l=5,b=6;
    area=l*b;
    printf("%f",area);
}
```

⑥ Circle

```
#include<stdio.h>
void main()
{
    float pi,r,area;
    pi=3.14,r=3;
    area = pi*r*r;
    printf("%f",area);
}
```

⑦ Square

```
#include<stdio.h>
void main()
{
    float s,area;
    s=4;
    area=side*side
    printf("%f",area);
}
```

⑧ Triangle

```
#include<stdio.h>
void main()
{
    float b,h,area;
    b=6,h=2;
    area=(b*h)/(float)2;
    printf("%f",area);
}
```

DAILY DOSE

Write binary representation of 1 to 30

$2^0=1$ $2^1=2$ $2^2=4$

1 2 4 - -

1 → 00000001
2 → 00000010
3 → 00000011
4 → 00000100
5 → 00000101
6 → 00000110
7 → 00000111
8 → 00001000
9 → 00001001
10 → 00001010
11 → ~~00001100~~ 00001011
12 → 00001100
13 → 00001101
14 → 00001110
15 → 00001111
16 → 00010000
17 → 00010001
18 → 00010010
19 → 00010011
20 → 00010100
21 → 00010101
22 → 00010110
23 → 00010111
24 → 00011000
25 → 00011001
26 → 00011010
27 → 00011011
28 → 00011100
29 → 00011101
30 → 00011110

31

$\frac{31}{2}$ = 15 = 1

$\frac{15}{2}$ = 7 = 1

$\frac{7}{2}$ = 3 = 1

$\frac{3}{2}$ = 1

$\frac{1}{2}$ = 0 = 1

11111

$(25.33)_{10}$

$(11001.0101)_2$

Data type problems

vi pps.c

①
```
#include<stdio.h>
void main()
{
    char a,b,c;
    printf("Enter the three values");
    scanf("%c%c%c",&a,&b,&c);
    printf("%c%c%c",c,b,a);
}
```

② vi rectangle.c

```
#include<stdio.h>
void main()
{
    int l,b,area,per;
    printf("\n Enter l");
    scanf("%d",&l);
    printf("\n Enter b");
    scanf("%d",&b);
    area = l*b;
    per = 2*(l+b);
    printf("\n Area of rectangle = %d",area);
    printf("\n Area of rectangle = %d",per);
}
```

vi circle.c

```
#include<stdio.h>
Void main()
{
    float r,pi,area,per;
    printf ("\nEnter r");
    scanf ("%d",&r);
    area = 3.14*r*r;
    per = 2*3.14*r;
    printf ("\n Area of circle =%d, area);
    printf ("\n Perimeter of circle =%d, per);
}
```

(3) vi size.c

```
#include<stdio.h>
void main()
{
    printf ("\n size of Integer =%ld", sizeof(int));
    printf ("size of char= %ld", sizeof(char));
    printf ("size of float=%ld", sizeof(float));
}
```

(4) vi intrest.c

```
#include<stdio.h>
void main()
{
    int P,T,R,I;
    P=20
```

```
T = 10
R = 5
I = PTR/100
printf("In Simple Intrest = %d", I)
}
```

5) vi variable.c

```
#include<stdio.h>
void main()
{
    int a;
    Short int b;
    long int c;
    longlongint d;
    char ch;
    float f;
    double ad;
    longdouble ld;
    scanf("%d%d%ld%lld%c%f%lf%Lf",
          &a, &b, &c, &d, &ch, &f, &ad, &ld);
    printf("%d%d%ld%lld%c%f%lf%Lf",
           a, b, c, d, ch, f, ad, ld);
}
```

6) #include<stdio.h>
void main()
{
int days, days1, day2;
scanf ("%d", &days);
int years, months;
years = days/365;
days1 = days%365;
months = days/30;
days2 = days%30
printf ("%d %d %d", years, months, days);
return 0;
}

7) #include<stdio.h>
void main()
{
int a, b, c, sum, prod, avg;
a=3, b=2, c=4;
sum = a+b+c;
prod = a*b*c;
avg = (a+b+c)/3;
printf ("%d %d %d", sum, prod, avg);
}

8) #include<stdio.h>
void main()
{
int pens, cost, units, g, Rs;
pens = 10;
cost = 20;
units = 50;
g = pens * units;
Rs = cost * units;
printf("%d, %d", g, Rs);
}

12) $c = \frac{(F-32)5}{9}$

$9c = 5F - 160$

$\frac{9c+160}{5} = F$

#include<stdio.h>
void main()
{
float c, f;
~~printf("\n Enter~~
printf("\n Enter the value of f");
scanf("%f", &f);
c = (f-32)*5/9;
printf("\n celsius = %.3f", c);
}

10)
```
#include<stdio.h>
void main()
{
    float totaldistance, fuel, avgconsumption;
    printf("\n Enter total distance");
    scanf("%f", &totaldistance);
    printf("\nEnter fuel");
    scanf("%f", &fuel);
    avgconsumption = totaldistance/fuel;
    printf("\navgconsumption = %.2f", avgconsumption);
}
```

10800

13)
```
#include<stdio.h>
int main()
{
    int seconds, seconds1, seconds2;
    scanf("%d", &seconds);
    int hours, minutes;
    hours = seconds/3600;
    seconds1 = seconds%3600;
    minutes = seconds1/60;
    seconds2 = seconds1%60;
    printf("\nno. of hours = %d", hours);
    printf("\nno. of minutes = %d", minutes);
    printf("\nno. of seconds = %d", seconds2);
    return 0;
}
```

10800

hr = 3
min = 180
seco = 10800