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Assignment - 2

1.
```
# include <stdio.h>
int main()
{
    int n, c ;
    printf("Enter a no.");
    scanf("%d", n);
    c = n %10 ;
    printf("unit digit is %d", c);
    printf("\n");
    return 0 ;
}
```

2.
```
#include <stdio.h>
int main()
{
    int n , c ;
    printf("Enter no.");
    scanf("%d", n);
    c = n /10 ;
    printf("no. without last digit is %d", c);
    printf("\n");
    return 0 ;
}
```

3.

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3.
```
#include <stdio.h>
int main()
{
    int a, b, c;
    printf("%d \n%d", a, b);
    printf("Enter two no.'s");
    scanf("%d %d", &a, &b);
    c = a;
    a = b;
    b = c;
    printf("%d %d", a, b);
    printf("\n");
    return 0;
}
```

3.
```
int main()
{
    int a, b, c;
    printf("Enter two no.'s");
    scanf("%d %d", &a, &b);
    c = a;
    a = b;
    b = c;
    printf("\n a = %d  b = %d", a, b);
    printf("\n");
    return 0;
}
```

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4.
```
int main()
{
    int a, b;
    printf("Enter two no.");
    scanf("%d %d ,&a,&b");
    printf("a = %d  b = %d", a, b);
    a = a+b;
    b = a-b;
    a = a-b;
    printf("\na = %d  b = %d", a, b);
    printf("\n");
    return 0;
}
```

5.
```
int main()
{
    int n, sum, rem;
    int rem=0, sum=0;
    printf("Enter a three digit no.");
    scanf("%d",&n);
    rem = n %10;
    n = n/10;
    sum = sum + rem;

    rem = n %10;
    n = n/10;
    sum = sum + rem;

    rem = n %10;
    n = n/10;
    sum = sum + rem;
    printf("%d", sum);
    return 0;
}
```

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6.
```
#include <stdio.h>
int main()
{
    char a='b'
    printf("%d",a);
    return 0;
}
```

NOTE→ 1 0 1 0 0 1 0

↑ MSB ↑ LSB

even: LSB = 0 | odd: LSB - 1

1 & 1 = 1
0 & 1 = 0
0 & 0 = 0
1 & 0 = 0

(number) operate (mask)
5 & 1

8. (To check whether the no. is odd or even).

```
int main()
{   int n, result;
    printf("Enter no.");
    scanf("%d",&n);
    int result = n & 1;
    if (result == 1)
    {  printf("odd");
    else
        printf("even");}
    return 0;
}
```

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7.
```
# include <stdio.h>
int main ()
{
    int x, count=0, result =0;
    printf ("Enter no.");
    scanf ("%d",&x);
    while (x !=0).
    {
        result = x &1;
        count++;
        if(result ==1)
        {
            printf ("%d", count);
            break ;
        }
        x = x >>1;
    }
    return 0;
}
```

9.
```
int main () {
    int int type ;
    float float type ;
    Double double type ;
    char char type ;

print f ( size of (int type)) ;
print f ( size of ( float type)) ;
printf ( size of (double type)) ;
printf ( size of ( char type)) ;
```

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10.
```
# include <stdio.h>
int main
{
    int n, c;
    printf("Enter no.");
    scanf("%d", &n);
    c = n % 10;
    n = n - c;
    printf("%d", n);
    return 0;
}
```

11.
```
int main()
{
    int n, i;
    printf("Enter no.");
    scanf("%d", &n);
    printf("Enter digit");
    scanf("%d", &i);
    n = n + i;
    printf("%d", n);
    return 0;
}
```

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12.
```
int main()
{
    float n, i;
    printf("Enter rupees");
    scanf("%f", n);
    i = n | 76.23;
    printf("amount in dollars is %.4", i);
    return 0;
}
```

13.
```
#include <stdio.h>
int main()
{
    int a, b, c, d;
    printf("Enter a");
    scanf("%d", &a);
    printf("Enter b");
    scanf("%d", &b);
    printf("Enter c");
    scanf("%d", c);
    d = b^2 - 4*a*c;
    printf("determinant is %d", d);
    if (d==0)
    {
        printf("roots are imaginary");
    }
    Else if (d>0)
    {
        printf("roots are real and distinct");
    }
    Else
    {
        printf("roots are imaginary");
    } return 0;
}
```