A 1 - int n=68491;

```
  int rem,sum=0;
  while (n>0) {
      rem=n%10;
      sum=sum*10+rem;
      n=n/10;
  }
  printf("%d",sum);
```

A 2 - int n=19486;

```
  int rem,sum=0;
  while (n>0) {
      rem=n%10;
      sum=sum*10+rem;
      n=n/10;
  }
  printf("%d",sum);
```

A 3 - int n=9164;

```
  int rem,sum=0;
  while (n>0) {
      rem=n%10;
      sum=sum*10+rem;
      n=n/10;
  }
  printf("%d",sum);
```

A 4 - int n=12321;

```
  int rem,sum=0;
  int temp=n;
  while (n>0) {
      rem=n%10;
      sum=sum*10+rem;
      n=n/10;
  }
  if (temp==sum) {
  printf("palindrome number"); }

  else {
```

```
    printf("not palindrome"); }
```

A 5 -

```
int n=123421;
 int rem,sum=0;
 int temp=n;
 while (n>0) {
     rem=n%10;
     sum=sum*10+rem;
     n=n/10;
 }
 if (temp==sum) {
 printf("palindrome number"); }

 else {
   printf("not palindrome"); }
```

A 6 -

```
int num=153;
 int rem,sum=0;
 int temp=num;
 while (num>0) {
 rem=num%10;
 sum=sum+rem*rem*rem;
 num=num/10; }

 if (temp==sum) {
 printf("armstrong number"); }

 else {
 printf("not armstrong number"); }
```

Armstrong number

A 7 -

```
int num=152;
 int rem,sum=0;
 int temp=num;
 while (num>0) {
 rem=num%10;
 sum=sum+rem*rem*rem;
 num=num/10; }

 if (temp==sum) {
```

```
  printf("armstrong number"); }

  else {

  printf("not armstrong number"); }
```

Not armstrong number

A 8 -
```
int num=151;
  int rem,sum=0;
  int temp=num;
  while (num>0) {
  rem=num%10;
  sum=sum+rem*rem*rem;
  num=num/10; }

  if (temp==sum) {
  printf("armstrong number"); }

  else {
  printf("not armstrong number"); }
```

A 9 -
```
int num=9,square,rem,sum=0;

  square=num*num;
  while (square>0) {
  rem=square%10;
  sum=sum + rem;
  square=square/10; }

    if (sum == num) {
      printf("%d is a Neon number.\n", num);
    } else {
      printf("%d is not a Neon number.\n", num);
    }
```

9 is a neon number

A 10 -
```
int num = 28;
  int sum = 0;
  int i = 1;
```

```
  while (i <= num / 2) {
      if (num % i == 0) {
          sum += i;
      }
      i++;
  }


  if (sum == num) {
      printf("%d is a perfect number.\n", num);
  } else {
      printf("%d is not a perfect number.\n", num);
  }
```

A 11 -

```
  char a;
  printf("enter a character ");
  scanf("%c",&a);

  if (a=='r') {
    int n;
    scanf("%d",&n);
    int rem,sum=0;
    while (n>0) {
        rem=n%10;
        sum=sum*10+rem;
        n=n/10;
    }
    printf("Reverese number %d",sum);
  }

  else if (a=='a') {
    int num;
    scanf("%d",&num);
    int rem,sum=0;
    int temp=num;
    while (num>0) {
    rem=num%10;
    sum=sum+rem*rem*rem;
    num=num/10; }
```

```
  if (temp==sum) {
  printf("armstrong number"); }

  else {
  printf("not armstrong number"); }
}

 else if (a=='n') {
  int num;
  scanf("%d",&num);
  int square,rem,sum=0;
  square=num*num;
  while (square>0) {
  rem=square%10;
  sum=sum + rem;
  square=square/10; }

    if (sum == num) {
      printf("%d is a Neon number.\n", num);
    } else {
      printf("%d is not a Neon number.\n",
    num); }
}

 else if (a=='p') {
  int n;
  scanf("%d",&n);
  int rem,sum=0;
  int temp=n;
  while (n>0) {
      rem=n%10;
      sum=sum*10+rem;
      n=n/10;
  }
  if (temp==sum) {
  printf("palindrome number"); }

  else {
    printf("not palindrome"); }
}
```

```
else if (a=='t') {
  int num;
  scanf("%d",&num);
  int sum = 0;
  int i = 1;

  while (i <= num / 2) {
      if (num % i == 0) {
          sum += i;
      }
      i++;
  }


  if (sum == num) {
      printf("%d is a perfect number.\n", num);
  } else {
      printf("%d is not a perfect number.\n",
  num); }
}

else {
printf("Character should be r,a,n,p,t"); }
```