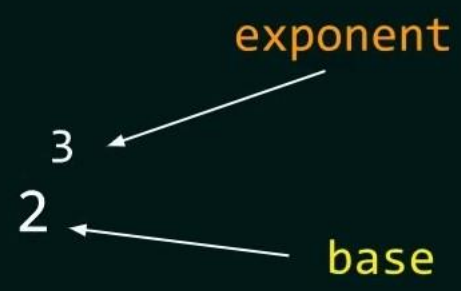
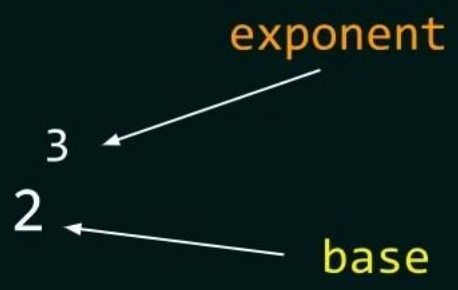
Implementation




```
int base, exponent;
int power=1, expo;
printf("Enter the base: ");
scanf("%d", &base);
printf("Enter the exponent: ");
scanf("%d", &exponent);

expo = exponent;
if(exponent > 0)
{
   while(exponent!=0)
   {
        power = power*base;
        exponent--;
   }
   printf("%d to the power of %d is %d", base, expo, power);
}
```

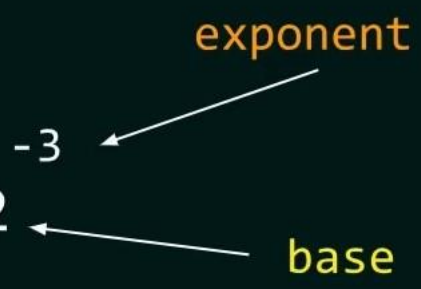
Implementation




```
int base, exponent;
int power=1, expo;
printf("Enter the base: ");
scanf("%d", &base);
printf("Enter the exponent: ");
scanf("%d", &exponent);

expo = exponent;
if(exponent > 0)
{
  while(exponent!=0)
  {
      power = power*base;
      exponent--;
  }
  printf("%d to the power of %d is %d", base, expo, power);
}
```

```
Iteration 1:
power = 1*2 = 2
exponent =  3-1 = 2

Iteration 2:
power = 2*2 = 4
exponent =  2-1 = 1

Iteration 3:
power = 4*2 = 8
exponent =  1-1 = 0
```

Implementation




```
int base, exponent, expo;
double power1=1.0;
printf("Enter the base: ");
scanf("%d", &base);
printf("Enter the exponent: ");
scanf("%d", &exponent);

expo = exponent;
if(exponent < 0)
{
   while(exponent!=0)
   {
       power1 = power1*(1.0/base);
       exponent++;
   }
   printf("%d to the power of %d is %.10f", base, expo, power1);
}
```

```
Iteration 1:
power1 = 1*(1.0/2) = 0.5
exponent =  -3+1 = -2

Iteration 2:
power1 = 0.5*(1.0/2) = 0.25
exponent =  -2+1 = -1

Iteration 3:
power1 = 0.25*(1.0/2) = 0.125
exponent =  -1+1 = 0
```