

INTEGER EXPONENTIAL

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

```
#include<math.h>
```

```
int integer_exponential(int x, int n)
```

```
{
```

```
    if (n == 0)
```

```
    {
```

```
        return 1;
```

```
    }
```

```
    else if (n % 2 == 0)
```

```
    {
```

```
        int y = integer_exponential(x, n / 2);
```

```
        return y * y;
```

```
    }
```

```
    else
```

```
    {
```

```
        return x * integer_exponential(x, n - 1);
```

```
    }
```

```
}
```

```
int main()
```

```
{
```

```
    int x, n;
```

```
    printf("Enter the base number: ");
```

```
    scanf("%d", &x);
```

```
    printf("Enter the exponential number: ");
```

```
    scanf("%d", &n);
```

```
    int val = integer_exponential(x, n);
```

```
    printf("The answer is %d", val);
```

}

OUTPUT

```
Enter the base number: 12
Enter the exponential number: 3
The answer is 1728
```