

Code

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#include "library.h"

double pow (const double x, const double y, const double z)

{ if (z<=1)
{return 1;}

if (z==2)
{return y*x*1;}

return pow(x*y,y,z-1);}

double factorial(const double t,const double z)

{ if (z <=1){
return 1;}
if (z==2){
return t;}
return factorial (t*(z-1),z-1);}

double tseries(const double x, const double z, const double s=0)

{if (z<=0)
{return s;}

double t=z;
double y = x;

return tseries (x,z-1,s+pow(x,y,z)/factorial(t,z));}

double table(const double x, const double z=1)

{if (exp(x) - tseries (x,z-1)-x >= 0.000000001)
{print (z);

if(z==1)
{print (" term = ")
```

```
else {
print (" terms = ");}
if(z>=2)
{print (tseries(x,z-1)+x);
print ("error = ");
print(exp(x) -tseries(x,z));
new_line();

return (table(x,z+1));}}
```

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void main()
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{print ("Enter Power:");
double x = read_int ();
new_line();
print ("e =");
double o =1;
print(exp(o));
new_line();
print("e^");
print ( " = ");
print (exp(x));
new_line();
table(x);}}
```