

Example 1: Greeting Message

```
@echo off  
echo Welcome to Batch Programming!  
echo This is your first batch file.  
pause
```

Example 2: Addition Calculator

```
@echo off  
set /p num1=Enter the first number:  
set /p num2=Enter the second number:  
set /a sum=num1+num2  
echo The sum is %sum%.  
pause
```

Additional practice problems:

Write a batch file that asks the user to enter their name and displays a personalized greeting message.

```
@echo off  
set /p name=Enter your name:  
echo Hello, %name%! Welcome to batch programming.  
pause
```

Create a batch file that calculates the area of a rectangle. Prompt the user to enter the length and width, and display the calculated area.

```
@echo off  
set /p length=Enter the length of the rectangle:  
set /p width=Enter the width of the rectangle:  
set /a area=length * width  
echo The area of the rectangle is %area%.  
pause
```

Write a batch file that converts temperature from Fahrenheit to Celsius. Prompt the user to enter a temperature in Fahrenheit and display the converted temperature in Celsius.

```
@echo off

set /p fahrenheit=Enter the temperature in Fahrenheit:

set /a celsius=(fahrenheit - 32) * 5 / 9

echo The temperature in Celsius is %celsius% degrees.

pause
```

Create a batch file that checks if a given number is even or odd. Prompt the user to enter a number and display whether it is even or odd.

```
@echo off

set /p num=Enter a number:

set /a remainder=num %% 2

if %remainder% equ 0 (

    echo The number is even.

) else (

    echo The number is odd.

)

pause
```

Write a batch file that prompts the user to enter their age and displays a message indicating if they are eligible to vote.

```
@echo off

set /p age=Enter your age:

if %age% geq 18 (

    echo You are eligible to vote.

) else (

    echo You are not eligible to vote yet.

)

pause
```

Problem:

Write a batch file that prompts the user to enter a number and then counts from 1 to that number, displaying each number on a new line.

```
@echo off

set /p count=Enter a number:

setlocal enabledelayedexpansion

for /l %%i in (1, 1, %count%) do (

    echo %%i

)

endlocal
```

Problem:

Write a batch file that prompts the user to enter a number and then calculates and displays its factorial.

```
@echo off

set /p num=Enter a number:

setlocal enabledelayedexpansion

set fact=1

for /l %%i in (1, 1, %num%) do (

    set /a fact*=%%i

)

echo The factorial of %num% is %fact%.

Endlocal
```

Problem:

Write a batch file that prompts the user to enter the height of the pyramid (number of rows) and then prints a pyramid pattern using asterisks.

```
@echo off

set /p height=Enter the height of the pyramid:

setlocal enabledelayedexpansion
```

```
set "spaces= "
set "asterisk=*"

rem Calculate the number of spaces required for the first row
set /a spaces_num=%height%-1

rem Loop through each row of the pyramid
for /l %%i in (1, 1, %height%) do (
    rem Print the required number of spaces
    for /l %%j in (1, 1, !spaces_num!) do (
        echo|set /p=!spaces!
    )

    rem Print the required number of asterisks
    for /l %%k in (1, 1, %%i) do (
        echo|set /p=!asterisk!
    )

    rem Move to the next line
    echo.

    rem Decrement the number of spaces for the next row
    set /a spaces_num-=1
)

endlocal
```