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**Date: October 11<sup>th</sup>**

**Extra Credit**

**This extra credit assembly program implements the area of a triangle formula. This formula is**

**Area = (Base \* Height) / 2**

**Here is my code**

```
;Extra Credit! This program calculates the area of a triangle using the b*h/2 formula.
;Quinn Roemer
;October 11th 2017
```

```
.586
.MODEL FLAT
```

```
INCLUDE io.h ;Header file for input/output
```

```
.STACK 4096 ;Reserving 4096 bytes of memory on the stack.
```

```
.DATA ;This is where all of my variables are declared.
```

```
volume      DWORD ?
base        DWORD ?
height      DWORD ?
two         DWORD 2
prompt1     BYTE "Please enter the base of the triangle.", 0
prompt2     BYTE "Please enter the height of the triangle.", 0
prompt3     BYTE "The area is...", 0
temp        BYTE 40 DUP (?)
```

```
.CODE ;This is where all of my code is written.
```

```
_MainProc PROC
```

```
    input prompt1, temp, 40
    atod temp
    mov base, eax
```

```
    input prompt2, temp, 40
    atod temp
```

```
    mul base
    mov ebx, two
    div ebx
```

```
    dtoa temp, eax
    output prompt3, temp
```

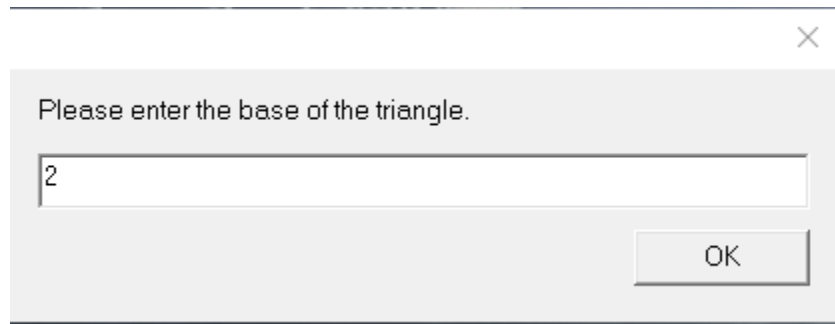
```
    ret ;Returning.
```

```
_MainProc ENDP
```

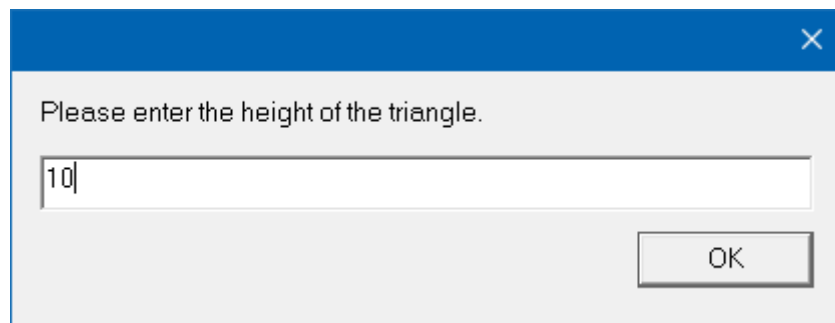
```
END ;End of code.
```

**Here is my output**

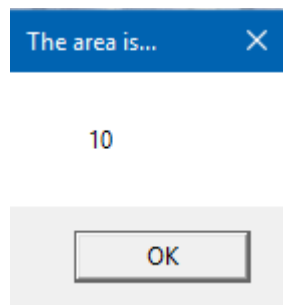
**Example 1**



A dialog box with a title bar containing a close button (X). The main area contains the text "Please enter the base of the triangle." followed by a text input field containing the number "2". At the bottom right is an "OK" button.

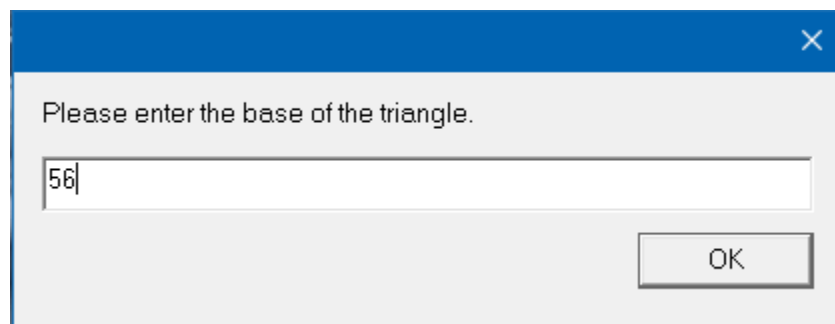


A dialog box with a blue title bar containing a close button (X). The main area contains the text "Please enter the height of the triangle." followed by a text input field containing the number "10". At the bottom right is an "OK" button.



A small dialog box with a blue title bar containing the text "The area is..." and a close button (X). The main area displays the number "10". At the bottom is an "OK" button.

**Example 2**



A dialog box with a blue title bar containing a close button (X). The main area contains the text "Please enter the base of the triangle." followed by a text input field containing the number "56". At the bottom right is an "OK" button.

×

Please enter the height of the triangle.

3

OK

The area is...×

84

OK