

# How can I calculate time difference in VBA and what are some examples?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

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In Visual Basic for Applications (VBA), time difference can be calculated using the "DateDiff" function. This function takes in two parameters - the interval (such as days, hours, minutes) and the two dates between which the difference is to be calculated. The result is returned in the specified interval, giving the time difference in that unit.

For example, if we want to calculate the number of days between two dates, we can use the following formula:

```
DateDiff("d", Date1, Date2)
```

This will return the number of days between Date1 and Date2. Similarly, we can calculate the difference in hours, minutes, seconds, and other units.

Another example would be to calculate the duration of an event by subtracting the start time from the end time. This can be done by using the "TimeValue" function to convert the time into a numerical value, and then using simple subtraction to get the time difference.

In summary, the "DateDiff" function in VBA allows for easy calculation of time difference between two dates or times in various units, making it a useful tool for time-related operations.

## Calculate Time Difference in VBA (With Examples)

You can use the following basic syntax in VBA to calculate the difference between two times:

```
Sub FindTimeDifference()
```

```
Dim i As Integer
```

```
For i = 2 To 7
```

```
'calculate time difference in days
```

```
Range("C" & i) = Range("B" & i) - Range("A" & i)
```

```
'calculate time difference in hours
```

```
Range("D" & i) = (Range("B" & i) - Range("A" & i)) * 24
```

```
'calculate time difference in minutes
```

```
Range("E" & i) = (Range("B" & i) - Range("A" & i)) * 24 *  
60
```

```
'calculate time difference in seconds
```

```
Range("F" & i) = (Range("B" & i) - Range("A" & i)) * 24 *  
60 * 60
```

```
Next i
```

```
End Sub
```

This particular macro will calculate the difference between the corresponding times in the ranges A2:A7 and B2:B7 and return the following results:

C2:C7 will contain the time difference in days  
D2:D7 will contain the time difference in hours  
E2:E7 will contain the time difference in minutes  
F2:F7 will contain the time difference in seconds

The following example shows how to use this syntax in practice.

## Example: Calculate Time Difference in VBA

Suppose we have the following two columns of start and end times in Excel:

	A	B	C	D	E	F
1	<b>Start Time</b>	<b>End Time</b>				
2	1:15 AM	1:19 AM				
3	3:44 AM	8:45 AM				
4	9:00 AM	12:15 PM				
5	11:34 AM	10:13 PM				
6	10:00 AM	4:15 PM				
7	10:32 AM	9:33 PM				
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

We can create the following macro to calculate the time difference between each start and end time and display the results in columns C through F:

```
Sub FindTimeDifference()
```

```
Dim i As Integer
```

**For i = 2 To 7**

**'calculate time difference in days**

**Range("C" & i) = Range("B" & i) - Range("A" & i)**

**'calculate time difference in hours**

**Range("D" & i) = (Range("B" & i) - Range("A" & i)) \* 24**

**'calculate time difference in minutes**

**Range("E" & i) = (Range("B" & i) - Range("A" & i)) \* 24 \*  
60**

**'calculate time difference in seconds**

**Range("F" & i) = (Range("B" & i) - Range("A" & i)) \* 24 \*  
60 \* 60**

**Next i**

**End Sub**

**When we run this macro, we receive the following  
output:**

	A	B	C	D	E	F	
1	Start Time	End Time	Days	Hours	Minutes	Seconds	
2	1:15 AM	1:19 AM	0.002778	0.066667	4	240	
3	3:44 AM	8:45 AM	0.209028	5.016667	301	18060	
4	9:00 AM	12:15 PM	0.135417	3.25	195	11700	
5	11:34 AM	10:13 PM	0.44375	10.65	639	38340	
6	10:00 AM	4:15 PM	0.260417	6.25	375	22500	
7	10:32 AM	9:33 PM	0.459028	11.01667	661	39660	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							

**Columns C through F display the time difference between the start and end times in various units.**