

# Formulas for Common Uses

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In the following formulas, change the `tfa_XXX` fields to match your form's **field aliases**. These are post-processing formula examples and will **not** work with [Form Calculations](#).

### Note:

- **Formulas cannot be used in connector repeating sections.**
- Field aliases from repeatable fields and sections **cannot** be used within FormAssembly formulas.
- **JavaScript calculations cannot be used in connectors.**

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## Skip If Formulas

### Skip object creation if a field is empty

```
@IF(%%tfa_XXX%%="", "TRUE", "FALSE")
```

### Skip object creation if either of the two fields is empty

```
@IF(@OR(%%tfa_XXX%%="", %%tfa_YYY%%=""), "TRUE", "FALSE")
```

### Skip object creation if a field contains a particular value (in this case, the value is @company.com)

```
@IF(@CONTAINS("@company.com", %%tfa_XXX%%), "TRUE", "FALSE")
```

---

## Blank Values

Check to see if a value is not blank; if it is blank, then send a different value rather than the blank value:

```
@IF(%%tfa_XXX%%,%%tfa_XXX%%,%%tfa_YYY%%)
```

This formula says, "If there is a value in tfa\_XXX, send that value. Otherwise, send the value in tfa\_YYY."

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## Checkboxes

Check a box in Salesforce only if both the "I agree to be contacted" and "I would like daily emails" checkboxes are checked

**Note:** Set the field's mapping selector to **Formula**.

```
@IF(@AND(%%tfa_XXX%%="I agree to be contacted",%%tfa_YYY%%="I would like daily emails"),  
"1","0")
```

Skip an object creation if a checkbox labeled "Don't Create Contact" is checked

```
@IF(%%tfa_XXX%%,"TRUE","FALSE")
```

Skip an object creation if a checkbox labeled "Create Contact" is unchecked

```
@IF(%%tfa_XXX%%="Create Contact","FALSE","TRUE")
```

Check a box in Salesforce if a certain option is selected from a multi-select drop-down list (in this case, we are looking for "Send me more information" to be selected)

**Note:** Set the field's mapping selector to **Formula**.

```
@IF(%%tfa_XXX%%="Send me more information","1","0")
```

---

## Formatting

### Title-case format a respondent's name in Salesforce

**Note:** Set the field's mapping selector to **Formula**.

```
@PROPER(%%tfa_XXX%%)
```

### Add line breaks to a set of values being populated into a Salesforce field

**Note:** Set the field's mapping selector to **Formula**.

```
@CONCATENATE(%%tfa_XXX%%,@CHAR(10),%%tfa_YYY%%)
```

### Add a copy of the response data to a Salesforce Text field

**Note:** Set the field's mapping selector to **Formula**.

```
%%RESPONSE_TEXT%%
```

### Add a copy of the response data to a Salesforce Rich Text field

**Note:** Set the field's mapping selector to **Formula**.

```
@CONCATENATE("<pre>",%%RESPONSE_TEXT%%,"</pre>")
```

---

## Dates and Times

**Note:**

- FormAssembly formulas honor the same date format parameters as PHP. More information on PHP formatting [can be found here](#).
- When prefilling a Time field type from Salesforce, times will often prefill in the military time format (08:00:00.000Z). As a workaround, we suggest using the Salesforce field alias (%%SFA\_Date\_Field\_\_c%%) in Salesforce Prefill Connector formulas to trim the first 5 characters. For example: @LEFT(%%SFA\_Date\_Field\_\_c%%,5) will output 08:00.

Calculate age using a date entered, where the field alias is the date field in your form

**Note:** Set the connector's field mapping selector to **Formula**.

```
@DATEDIF(@DATEVALUE(%%tfa_XXX%%),@TODAY(),"Y")
```

The output will be the year difference between the date entered and today's date.

Set today's date and time on a Salesforce Date field

**Note:** Set the field's mapping selector to **Formula**.

```
@YMDTODAY("")
```

The output will include time and be in the following format: 2017-09-05-04:00

Set today's date and time on a Salesforce Date field (alternative method)

**Note:** Set the field's mapping selector to **Formula**.

```
@LOCALNOW()
```

The output will include time and be in the following format: 09/05/2017 17:17

Set today's date on a Salesforce Date field

**Note:** Set the field's mapping selector to **Formula**.

```
@LOCALTODAY()
```

The output will be in the following format: 09/05/2017

Set yesterday's date on a Salesforce DateTime field

**Note:** Set the field's mapping selector to **Formula**.

```
@YMDNOW("-1 day")
```

The output will include the time and be in the following format: 2017-09-05T17:16:30-04:00

## Set the date on a Salesforce Date field to a year from today's date

```
@YMDTODAY("+1 year","Y-m-d")
```

Compare today's date with a specific date (in this case, we are seeing if today's date is past the date 01/15/2019)

```
@IF(@DATEVALUE(@LOCALTODAY())>@DATEVALUE("01/15/2019"),"TRUE","FALSE")
```

The output will be "TRUE" if the date listed (01/15/2019) has passed.

---

## Attachments

Give a user's file upload attachment a custom Salesforce File Name while retaining the extension (in this case, the custom file name is Profile\_Photo)

**Note:** Set the Attachment object's FileName field to **Formula**.

```
@CONCATENATE("Profile_Photo.",@MID(%%tfa_XXX%%,@COMPUTE(@FIND(".",%%tfa_XXX%%,1)+1),40))
```

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## Additional Resources

- [Line Breaks in Concatenates](#)
- [Send Leading Zeros to Salesforce](#)
- [Currency formatting](#)

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## FAQ

How do I insert line breaks between parts of my concatenation formula?

Rich Text fields accept HTML5. Instead of concatenations with `@CHAR(10)`, use `<br>` for line breaks.

- **Example Code:**

```
Dear person, <br /> %%tfa_13%% <br /> <br /> Hello Hello <br /> Hello
```

- **Output Result:**

Dear person,  
  
Great team work!  
  
Hello Hello  
Hello

When using line breaks in a concatenate formula, you can use `@CHAR(10)`.

- **Example Code:**

```
@CONCATENATE("Dear ", %%tfa_1%%, ", ", @CHAR(10), "Great team work!")
```

- **Output Result:**

Dear Bob,  
  
Great team work!

## How do I preserve leading zeros in a formula when sending it to Salesforce?

To preserve leading zeros, the value must be sent as a Text Field. If sending as a Salesforce Number field type, the Salesforce API will strip out leading zeros.

**Note:** Replace the '5' in the formula below with the desired length for the number of characters you would like to send.

```
@CONCATENATE(@REPT(0,5-@LEN(%%tfa_1%%)),%%tfa_1%%)
```

**Note:** FormAssembly's formula engine can handle a maximum integer/number length of **19 digits**. If you are trying to **prefill** or **use a formula** with a number that is longer than 19 digits, it will be cut off. This is only for numbers, not text.

## How do I format a Currency Field to always add a decimal with two places?

If you are using **email notifications** or the **auto-responder**, you may see that currency amounts are automatically stripped of trailing zeros if they are after a decimal. If you would like those zeros to remain, use the following formula:

```
@IF(@CONTAINS(".",%%tfa_XXX%%),@IF(@COMPUTE(@LEN(%%tfa_XXX%%)-@SEARCH(".",%%tfa_XXX%%))=2,%%tfa_XXX%,@CONCATENATE(%%tfa_XXX%,"0")),@CONCATENATE(%%tfa_XXX%,".00"))
```