

## Basic Level (1–10)

### 1. Concatenate First and Last Name (DAX Calculated Column)

DAX

КопироватьРедактировать

FullName = Customers[FirstName] & " " & Customers[LastName]

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### 2. Convert Email Address to Uppercase

DAX

КопироватьРедактировать

EmailUpper = UPPER(Customers[EmailAddress])

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### 3. Extract First 3 Characters from First Name

DAX

КопироватьРедактировать

First3Chars = LEFT(Customers[FirstName], 3)

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### 4. Count Characters in Last Name

DAX

КопироватьРедактировать

LastNameLength = LEN(Customers[LastName])

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### 5. Convert First Name to Lowercase

DAX

КопироватьРедактировать

FirstNameLower = LOWER(Customers[FirstName])

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### 6. Trim Spaces in EnglishEducation

DAX

КопироватьРедактировать

EducationTrim = TRIM(Customers[EnglishEducation])

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### 7. Repeat '\*' Character Equal to Length of First Name

DAX

КопироватьРедактировать

StarRepeat = REPT("?", LEN(Customers[FirstName]))

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### 8. Get Last 4 Characters of Phone Number

DAX

КопироватьРедактировать

Last4Phone = RIGHT(Customers[PhoneNumber], 4)

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## 9. Format YearlyIncome to Currency with 2 Decimals

DAX

КопироватьРедактировать

IncomeCurrency = FORMAT(Customers[YearlyIncome], "\$#,##0.00")

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## 10. Check If FirstName and LastName Are Exactly the Same

DAX

КопироватьРедактировать

NameSame = IF(Customers[FirstName] = Customers[LastName], TRUE(), FALSE())

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## 🔗 Intermediate Level (11–20)

## 11. Find If 'Manager' Appears in Occupation (Case Sensitive)

DAX

КопироватьРедактировать

HasManager = IF(CONTAINSSTRING(Customers[Occupation], "Manager"), TRUE(), FALSE())

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## 12. Search for 'graduate' in EnglishEducation (Case Insensitive)

DAX

КопироватьРедактировать

HasGraduate = IF(SEARCH("graduate", Customers[EnglishEducation], 1, 0) > 0, TRUE(), FALSE())

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## 13. Extract Characters 3–7 from First Name

DAX

КопироватьРедактировать

Chars3to7 = MID(Customers[FirstName], 3, 5)

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## 14. Replace Area Code in Phone Number with 'XXX'

*(Assuming area code is first 3 digits)*

DAX

КопироватьРедактировать

PhoneReplace = "XXX" & MID(Customers[PhoneNumber], 4, LEN(Customers[PhoneNumber])-3)

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## 15. Format BirthDate as 'DD-MM-YYYY'

DAX

КопироватьРедактировать

BirthDateFormat = FORMAT(Customers[BirthDate], "DD-MM-YYYY")

---

## 16. Create Initial + Last Name Format (e.g., J.Smith)

DAX

КопироватьРедактировать

InitialLast = LEFT(Customers[FirstName],1) & "." & Customers[LastName]

---

## 17. Capitalize First Letter of FirstName, Lowercase the Rest

DAX

КопироватьРедактировать

FirstCap = UPPER(LEFT(Customers[FirstName],1)) &  
LOWER(MID(Customers[FirstName],2,LEN(Customers[FirstName])-1))

---

## 18. Substitute Dashes with Spaces in Phone

DAX

КопироватьРедактировать

PhoneSpaces = SUBSTITUTE(Customers[PhoneNumber], "-", " ")

---

## 19. Convert BirthDate Year to Numeric Using VALUE

DAX

КопироватьРедактировать

BirthYear = VALUE(FORMAT(Customers[BirthDate], "YYYY"))

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## 20. Show YearlyIncome Rounded to 1 Decimal Without Commas

DAX

КопироватьРедактировать

IncomeRound = FORMAT(ROUND(Customers[YearlyIncome],1), "0.0")

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## Advanced Level (21–30)

## 21. Customer Code: First 2 Letters of LastName + Last 2 of CustomerKey

DAX

КопироватьРедактировать

CustomerCode = LEFT(Customers[LastName],2) & RIGHT(Customers[CustomerKey],2)

---

## 22. Validate Email Ends with '.com' and Contains '@'

DAX

КопироватьРедактировать

ValidEmail = IF(  
    AND(  
        CONTAINSSTRING(Customers[EmailAddress], "@"),  
        RIGHT(Customers[EmailAddress],4) = ".com"  
    ),  
    TRUE(),  
    FALSE()  
)

---

## 23. Extract Domain Name from EmailAddress

DAX

КопироватьРедактировать

```
Domain = MID(Customers[EmailAddress], SEARCH("@", Customers[EmailAddress]) + 1, LEN(Customers[EmailAddress]))
```

---

## 24. Mask Phone Number Except Last 4 Digits

DAX

КопироватьРедактировать

```
MaskedPhone = REPT("X", LEN(Customers[PhoneNumber])-4) & RIGHT(Customers[PhoneNumber],4)
```

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## 25. Proper Casing of Last Name (simulate manually)

DAX

КопироватьРедактировать

```
LastNameProper = UPPER(LEFT(Customers[LastName],1)) &  
LOWER(MID(Customers[LastName],2,LEN(Customers[LastName])-1))
```

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## 26. Replace Multiple Spaces in EnglishOccupation with Single Space (Power Query recommended for regex replacement, DAX limited)

### ✓ Power Query:

- Select column → Transform → Replace Values → Replace double spaces with single space repeatedly until cleaned.
- 

## 27. Generate Custom ID: Initials + Birth Year (e.g., JD\_1985)

DAX

КопироватьРедактировать

```
CustomID =  
LEFT(Customers[FirstName],1) &  
LEFT(Customers[LastName],1) &  
"_" & FORMAT(Customers[BirthDate], "YYYY")
```

---

## 28. Remove Hyphens and Convert Phone to Number

DAX

КопироватьРедактировать

```
PhoneNumberNumeric = VALUE(SUBSTITUTE(Customers[PhoneNumber], "-", ""))
```

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## 29. Categorize customers into segments based on education and income

DAX

КопироватьРедактировать

```
CustomerSegment =  
SWITCH(
```

```

TRUE(),
Customers[EnglishEducation] = "Graduate Degree" && Customers[YearlyIncome] > 90000, "Elite",
Customers[EnglishEducation] = "Bachelors" && Customers[YearlyIncome] >= 60000 &&
Customers[YearlyIncome] <= 90000, "Professional",
Customers[EnglishEducation] = "High School", "Basic",
"Other"
)

```

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### 30. Measure: Total Customers if no selection; Customer count for selected Gender; “Multiple Values Selected” if >1 gender selected.

```

DAX
КопироватьРедактировать
CustomerGenderCount =
VAR GenderCount = DISTINCTCOUNT(Customers[Gender])
RETURN
IF(
    HASONEVALUE(Customers[Gender]),
    CALCULATE(COUNTROWS(Customers)),
    IF(
        GenderCount > 1,
        "Multiple Values Selected",
        CALCULATE(COUNTROWS(Customers))
    )
)

```

✓ **Note:** To output text + numbers in a card, use FORMAT as necessary depending on your visualization needs.