

Basic Level (1–10)

Task	DAX Expression
1. Concatenate First and Last Name	<code>FirstLast = DimCustomer[FirstName] & " " & DimCustomer[LastName]</code>
2. Uppercase Email	<code>EmailUpper = UPPER(DimCustomer[EmailAddress])</code>
3. First 3 letters of First Name	<code>First3 = LEFT(DimCustomer[FirstName], 3)</code>
4. Count characters in Last Name	<code>LastLen = LEN(DimCustomer[LastName])</code>
5. Lowercase First Name	<code>FirstLower = LOWER(DimCustomer[FirstName])</code>
6. Trim Spaces in EnglishEducation	<code>TrimEdu = TRIM(DimCustomer[EnglishEducation])</code>
7. Repeat * by length of First Name	<code>Stars = REPT("*", LEN(DimCustomer[FirstName]))</code>
8. Last 4 of Phone	<code>PhoneEnd = RIGHT(DimCustomer[Phone], 4)</code>
9. Format YearlyIncome to Currency	<code>IncomeFormat = FORMAT(DimCustomer[YearlyIncome], "\$#,##0.00")</code>
10. Check First and Last Name same	<code>SameName = IF(DimCustomer[FirstName] = DimCustomer[LastName], "Yes", "No")</code>

Intermediate Level (11–20)

Task	DAX Expression
11. Find "Manager" in Occupation	<code>HasManager = IF(CONTAINSSTRING(DimCustomer[EnglishOccupation], "Manager"), "Yes", "No")</code>
12. Search "graduate" in Education	<code>HasGraduate = IF(SEARCH("graduate", LOWER(DimCustomer[EnglishEducation]), 1, 0) > 0, "Yes", "No")</code>

13. Characters 3–7 in First Name	<code>MidFirst = MID(DimCustomer[FirstName], 3, 5)</code>
14. Replace Area Code in Phone	<code>PhoneMasked = "XXX" & MID(DimCustomer[Phone], 4, LEN(DimCustomer[Phone]) - 3)</code>
15. Format BirthDate as DD-MM-YYYY	<code>BirthFormatted = FORMAT(DimCustomer[BirthDate], "DD-MM-YYYY")</code>
16. Initial + LastName	<code>InitLast = LEFT(DimCustomer[FirstName],1) & "." & DimCustomer[LastName]</code>
17. Capitalize first letter only	<code>FirstProper = UPPER(LEFT(DimCustomer[FirstName],1)) & LOWER(MID(DimCustomer[FirstName],2,LEN(DimCustomer[FirstName])))</code>
18. Replace dashes with spaces in Phone	<code>PhoneClean = SUBSTITUTE(DimCustomer[Phone], "-", " ")</code>
19. Convert Birth Year to Number	<code>BirthYearNum = VALUE(YEAR(DimCustomer[BirthDate]))</code>
20. Round Income to 1 decimal, no comma	<code>IncomeRounded = FORMAT(DimCustomer[YearlyIncome], "0.0")</code>

Advanced Level (21–30)

Task	DAX Expression
21. Customer Code	<code>CustCode = LEFT(DimCustomer[LastName],2) & RIGHT(DimCustomer[CustomerKey],2)</code>

```

22. Validate email      EmailValid = IF(SEARCH("@", DimCustomer[EmailAddress],
                        1, 0) > 0 && RIGHT(DimCustomer[EmailAddress], 4) =
                        ".com", "Valid", "Invalid")

23. Email domain        Domain = MID(DimCustomer[EmailAddress], SEARCH("@",
                        DimCustomer[EmailAddress]) + 1,
                        LEN(DimCustomer[EmailAddress]))

24. Mask all phone except last 4
                        PhoneMasked = REPT("*", LEN(DimCustomer[Phone]) - 4) &
                        RIGHT(DimCustomer[Phone], 4)

25. Proper case LastName (manual)
                        LastProper = UPPER(LEFT(DimCustomer[LastName],1)) &
                        LOWER(MID(DimCustomer[LastName],2,LEN(DimCustomer[LastName]))))

26. Remove double spaces in Occupation
                        CleanOcc = SUBSTITUTE(DimCustomer[EnglishOccupation], "
                        ", " ")

27. Custom ID           CustomID = LEFT(DimCustomer[FirstName],1) &
                        LEFT(DimCustomer[LastName],1) & "_" &
                        YEAR(DimCustomer[BirthDate])

28. Remove hyphens, convert phone
                        PhoneNumber = VALUE(SUBSTITUTE(DimCustomer[Phone], "-",
                        ""))

29. Segment customers
CustomerSegment =
SWITCH(
    TRUE(),
    DimCustomer[EnglishEducation] = "Graduate Degree" && DimCustomer[YearlyIncome] >
90000, "Elite",
    DimCustomer[EnglishEducation] = "Bachelors" && DimCustomer[YearlyIncome] >= 60000 &&
DimCustomer[YearlyIncome] <= 90000, "Professional",
    DimCustomer[EnglishEducation] = "High School", "Basic",
    "Other"
)
```


| 30. Dynamic gender-based customer count |


```

```DAX

```


```

```
GenderCount =  
VAR SelectedGenders = DISTINCTCOUNT(DimCustomer[Gender])  
RETURN  
    SWITCH(  
        TRUE(),  
        SelectedGenders = 0, CALCULATE(COUNTROWS(DimCustomer)),  
        SelectedGenders = 1, CALCULATE(COUNTROWS(DimCustomer)),  
        "Multiple Values Selected"  
    )  
''' |
```