Basic Level (1–10)

1. **Concatenate First and Last Name**

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

2. **Convert Email Address to Uppercase**

```
UpperEmail = UPPER([EmailAddress])
```

3. **Extract First 3 Characters from First Name**

```
First3 = LEFT([FirstName], 3)
```

4. **Count Characters in Last Name**

```
LastNameLength = LEN([LastName])
```

5. **Convert First Name to Lowercase**

```
LowerFirstName = LOWER([FirstName])
```

6. **Trim Spaces in EnglishEducation**

```
TrimmedEducation = TRIM([EnglishEducation])
```

7. **Repeat '*' Equal to Length of First Name**

```
StarRepeat = REPT("*", LEN([FirstName]))
```

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

```
Last4Phone = RIGHT([Phone], 4)
```

9. **Format YearlyIncome to Currency with 2 Decimals**

```
FormattedIncome = FORMAT([YearlyIncome], "$#,##0.00")
```

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

```
SameNameCheck = IF([FirstName] = [LastName], "Yes", "No")
```

Intermediate Level (11–20)

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

```
IsManager = IF(CONTAINSSTRING([EnglishOccupation], "Manager"), "Yes", "No")
```

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

```
IsGraduate = IF(SEARCH("graduate", LOWER([EnglishEducation]), 1, 0) > 0,
"Yes", "No")
```

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

```
MidFirstName = MID([FirstName], 3, 5)
```

14. **Replace Area Code in Phone with 'XXX' (Assume 3-digit area code)**

```
MaskedPhone = "XXX" & MID([Phone], 4, LEN([Phone]) - 3)
```

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

```
FormattedBirthDate = FORMAT([BirthDate], "DD-MM-YYYY")
```

16. **Initial + Last Name (e.g., J.Smith)**

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

17. **Capitalize First Letter of FirstName**

```
CapFirstName = UPPER(LEFT([FirstName],1)) &
LOWER(MID([FirstName],2,LEN([FirstName])))
```

18. **Substitute Dashes with Spaces in Phone**

```
PhoneWithSpaces = SUBSTITUTE([Phone], "-", " ")
```

19. **Convert Birth Year to Numeric**

```
BirthYearNumeric = VALUE(YEAR([BirthDate]))
```

20. **YearlyIncome Rounded to 1 Decimal, No Comma**

```
RoundedIncome = FORMAT([YearlyIncome], "0.0")
```

Advanced Level (21–30)

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

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

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

```
ValidEmail = IF(CONTAINSSTRING([EmailAddress], "@") &&
RIGHT([EmailAddress],4) = ".com", "Valid", "Invalid")
```

23. **Extract Domain from Email**

```
EmailDomain = MID([EmailAddress], FIND("@", [EmailAddress]) + 1,
LEN([EmailAddress]))
```

24. **Mask Phone Except Last 4 Digits**

```
MaskedPhone2 = REPT("*", LEN([Phone]) - 4) & RIGHT([Phone], 4)
```

25. **Proper Casing LastName (simulate manually)**

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

26. **Replace Multiple Spaces in EnglishOccupation with Single Space**

```
CleanOccupation = SUBSTITUTE(TRIM([EnglishOccupation]), "  ", " ")
```

27. **Custom ID: Initials + Birth Year**

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

28. **Remove Hyphens and Convert Phone to Number**

```
PhoneAsNumber = VALUE(SUBSTITUTE([Phone], "-", ""))
```

29. **Categorize Customers (based on Education + Income)**

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

30. **Measure: Total Customers or Selected Gender Count**

```
CustomerCount =
IF(
    HASONEVALUE(DimCustomer[Gender]),
    COUNTROWS(FILTER(DimCustomer, DimCustomer[Gender] =
SELECTEDVALUE(DimCustomer[Gender]))),
    IF(ISFILTERED(DimCustomer[Gender]), "Multiple Values Selected",
COUNTROWS(DimCustomer))
)
```