APPLIED SOFTWARE AUTOMATION TOOLS

RIGA TECHNICAL UNIVERSITY

COURSE 3

01.10.2020

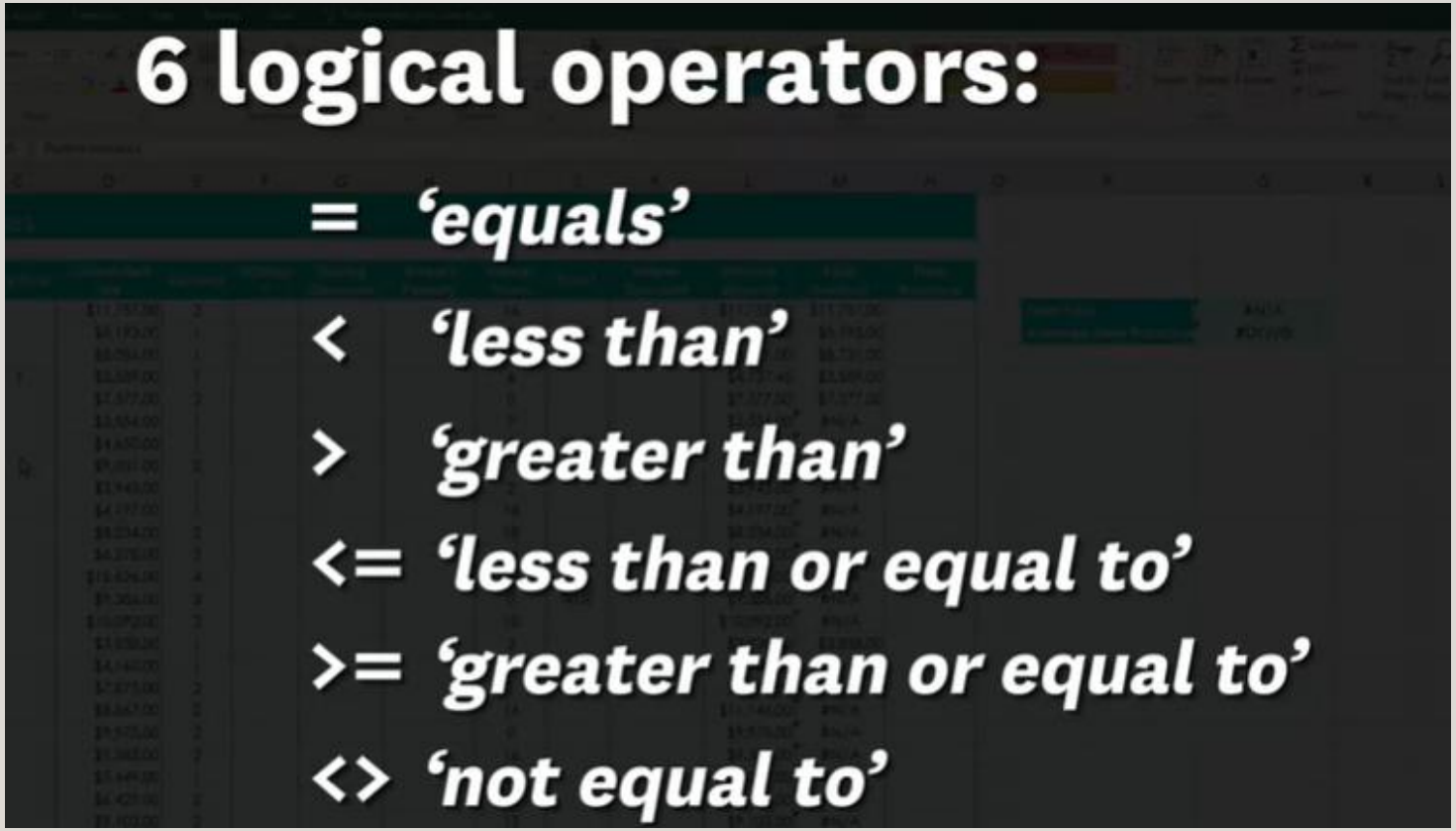
STRUCTURE

A. Short review of previous Functions
   1. IF
   2. ANA & OR
   3. IF with AND & OR
   4. Nested IFs
   5. IFERROR & IFNA
   6. NOT
   7. EXACT

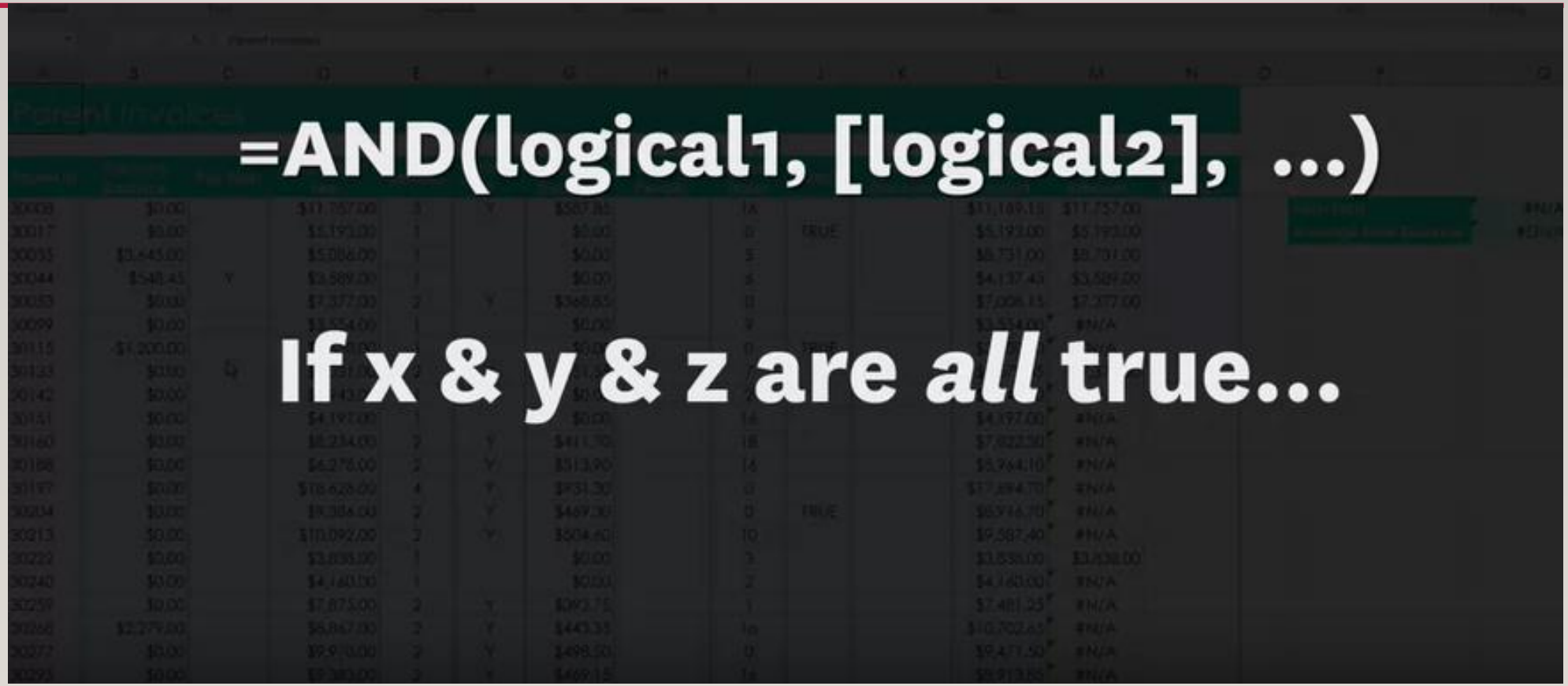
B. Practical work on assignment

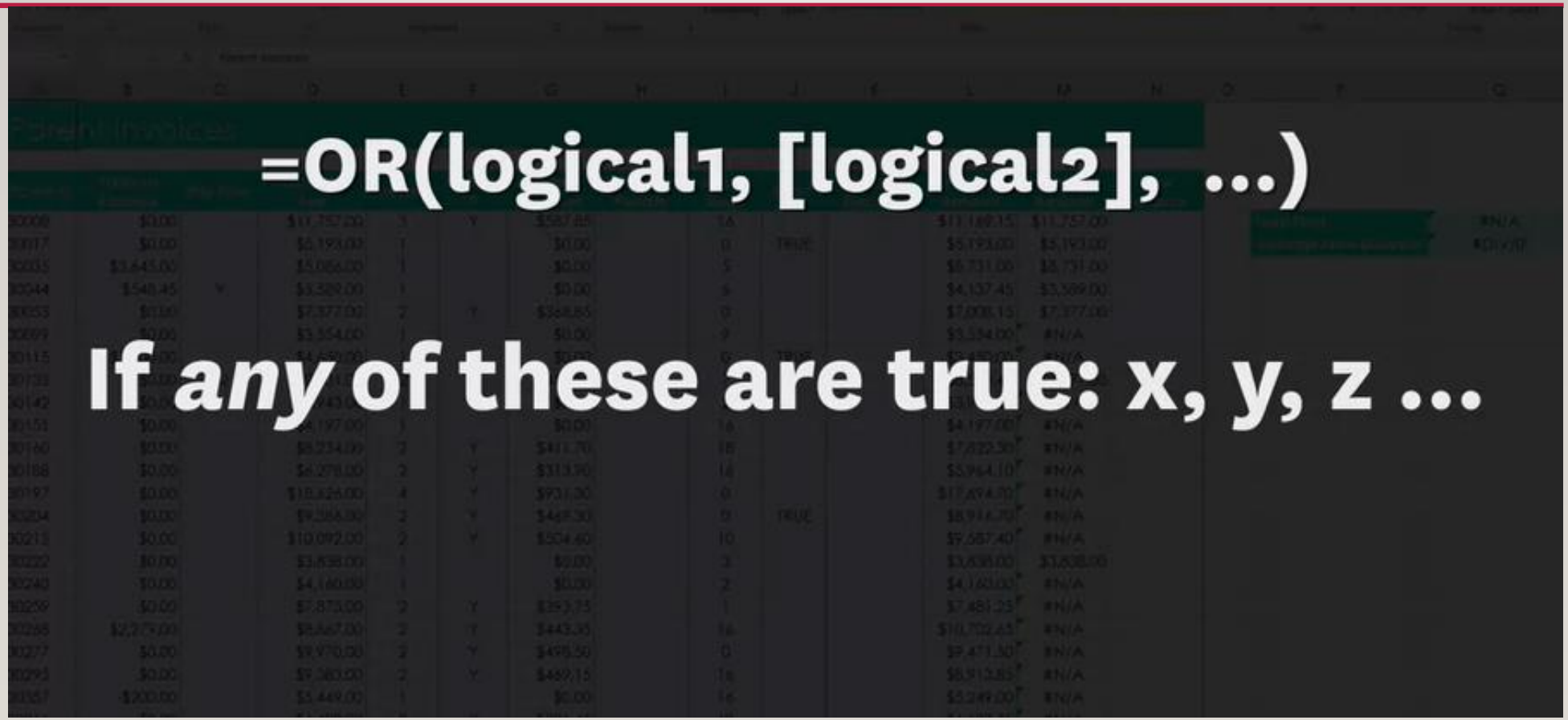
1. LOGICAL FUNCTION IF

TYPES OF THE OPERATOR

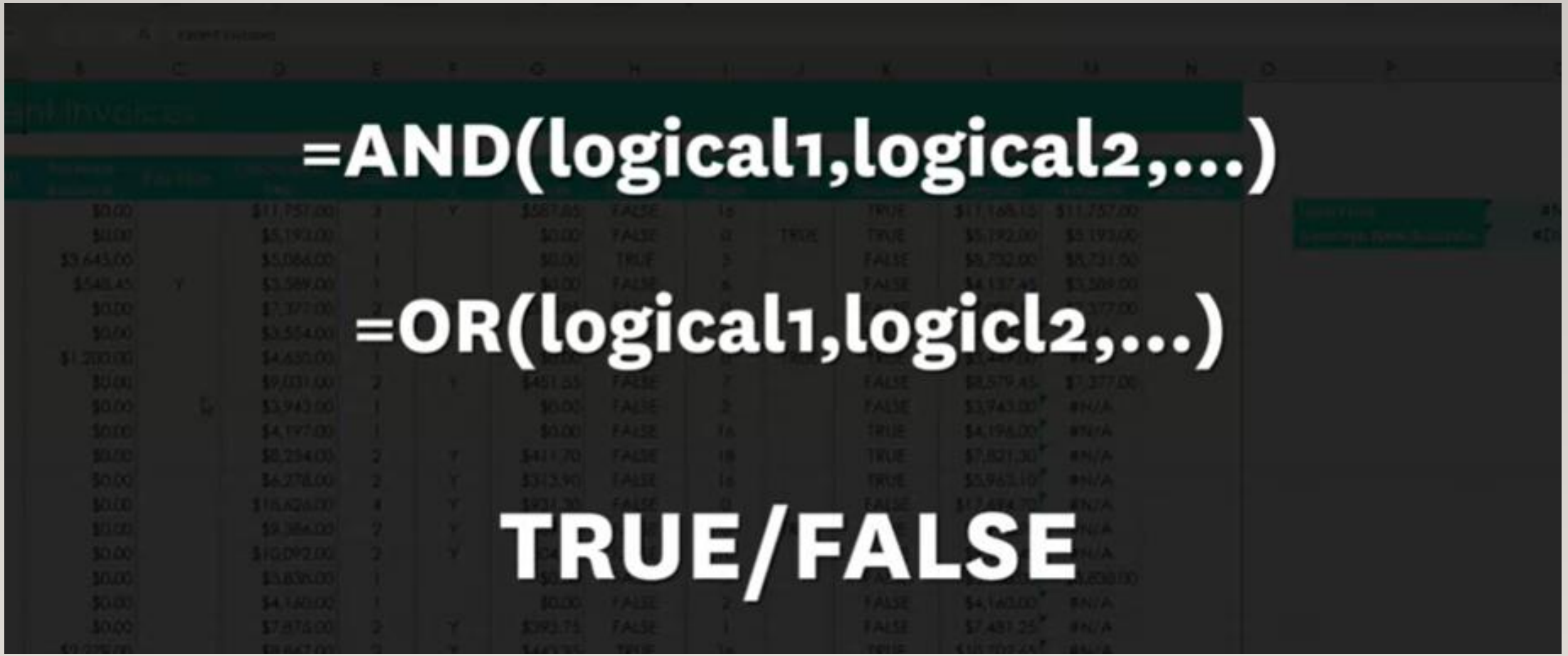


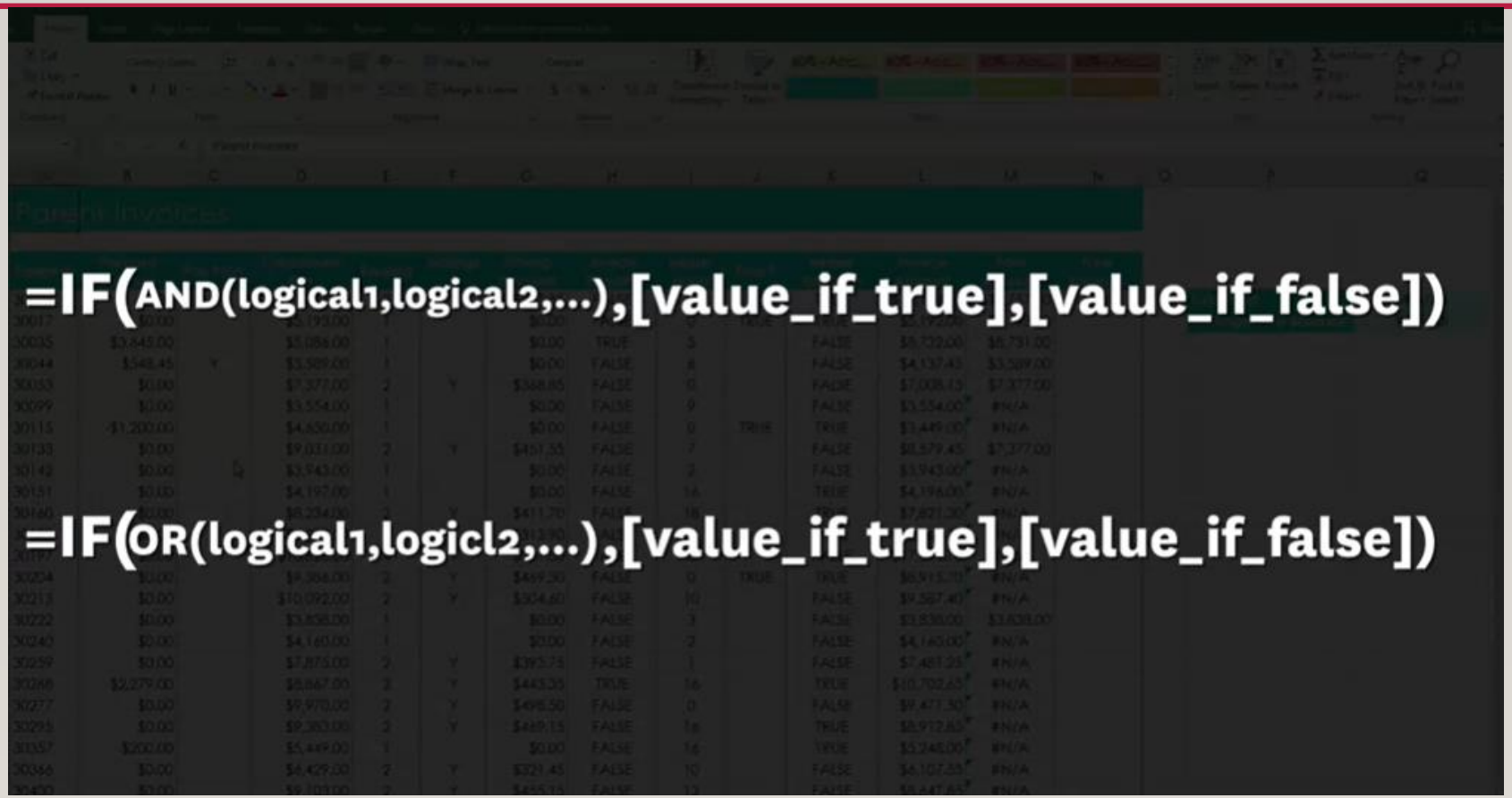
2. LOGICAL FUNCTION AND & OR

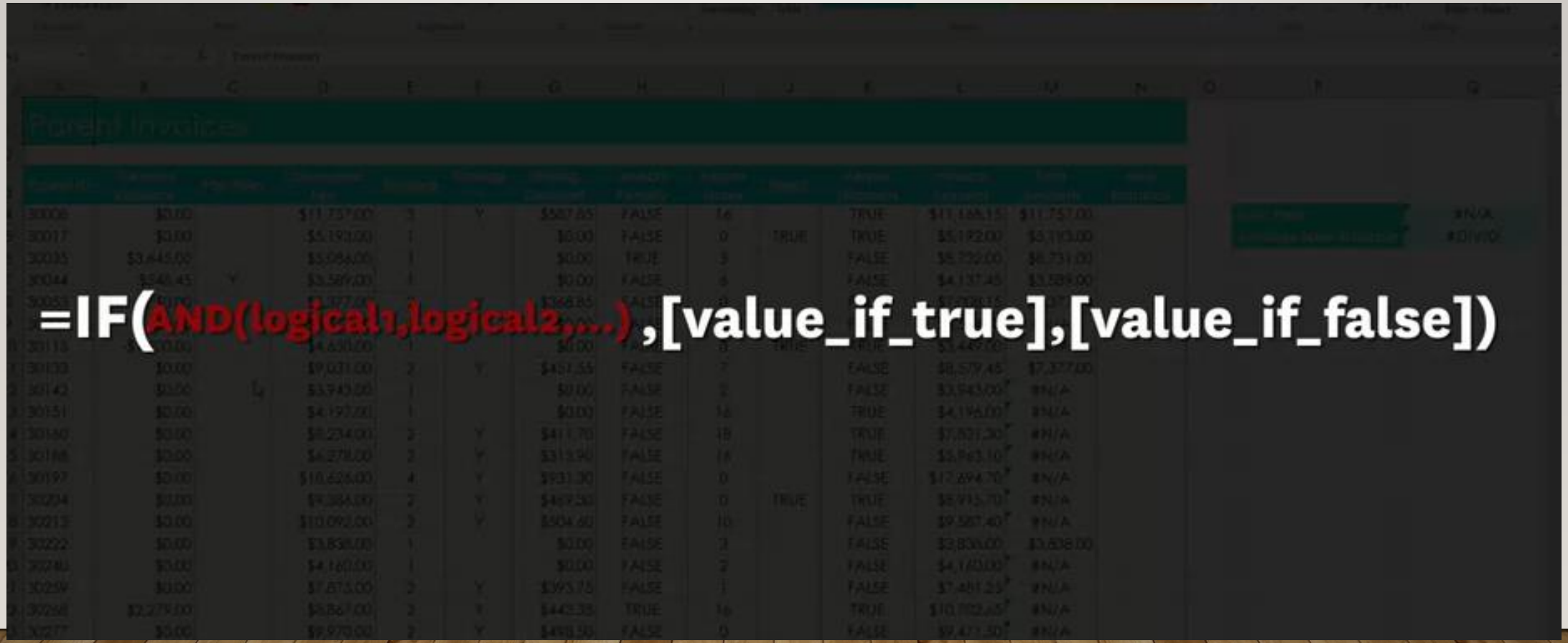



=OR(logical1, [logical2], ...)
If *any* of these are true: x, y, z ...

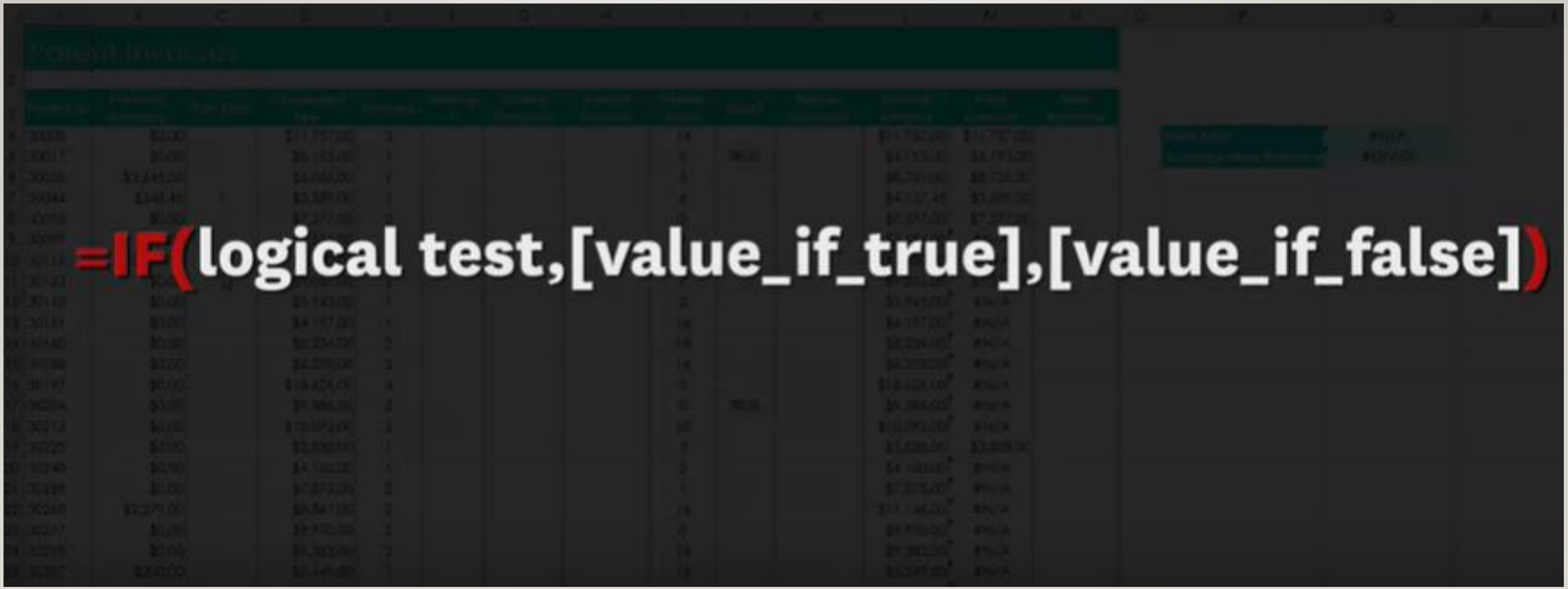
3. LOGICAL FUNCTIONS: IF WITH AND & WITH OR

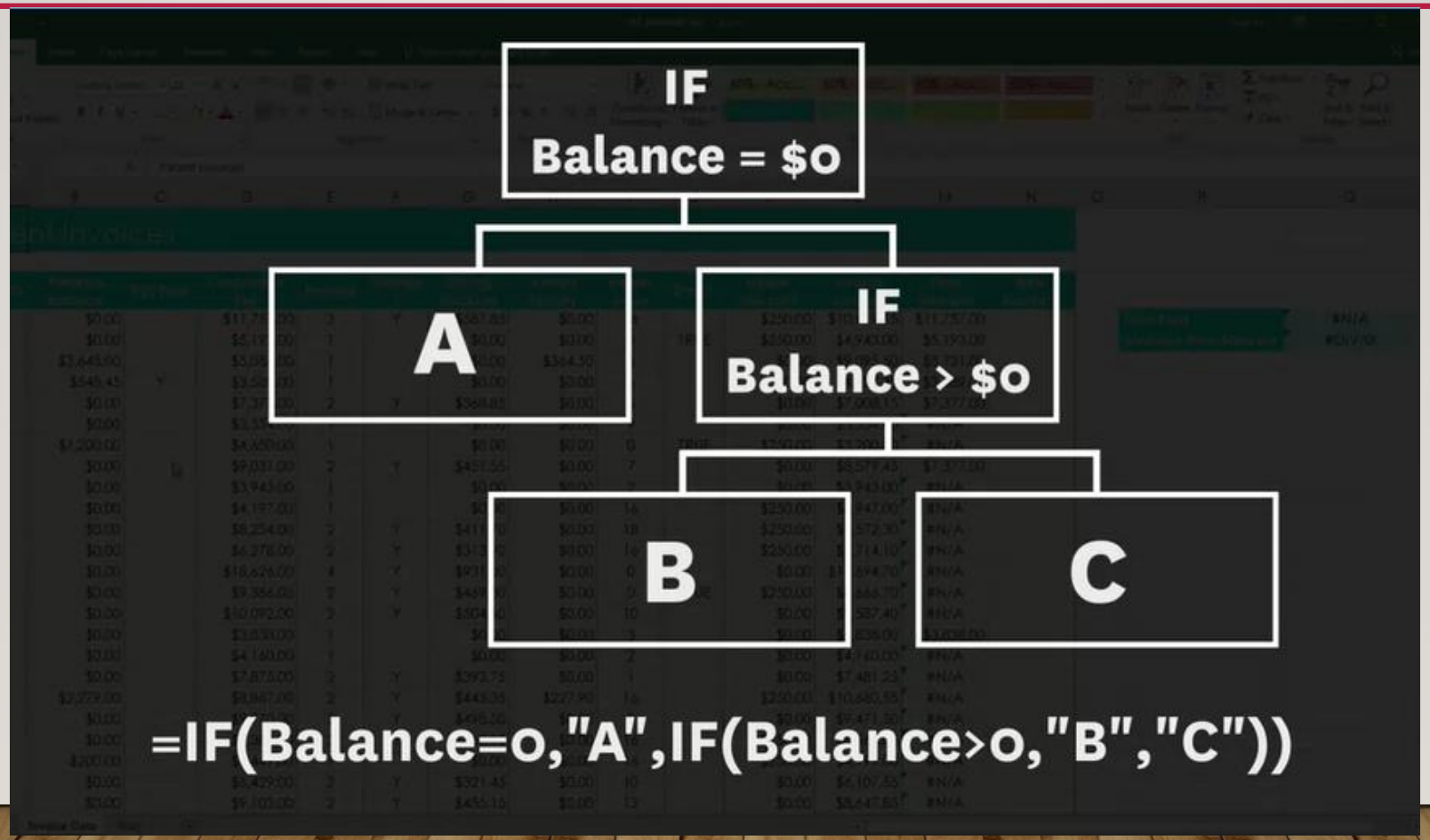


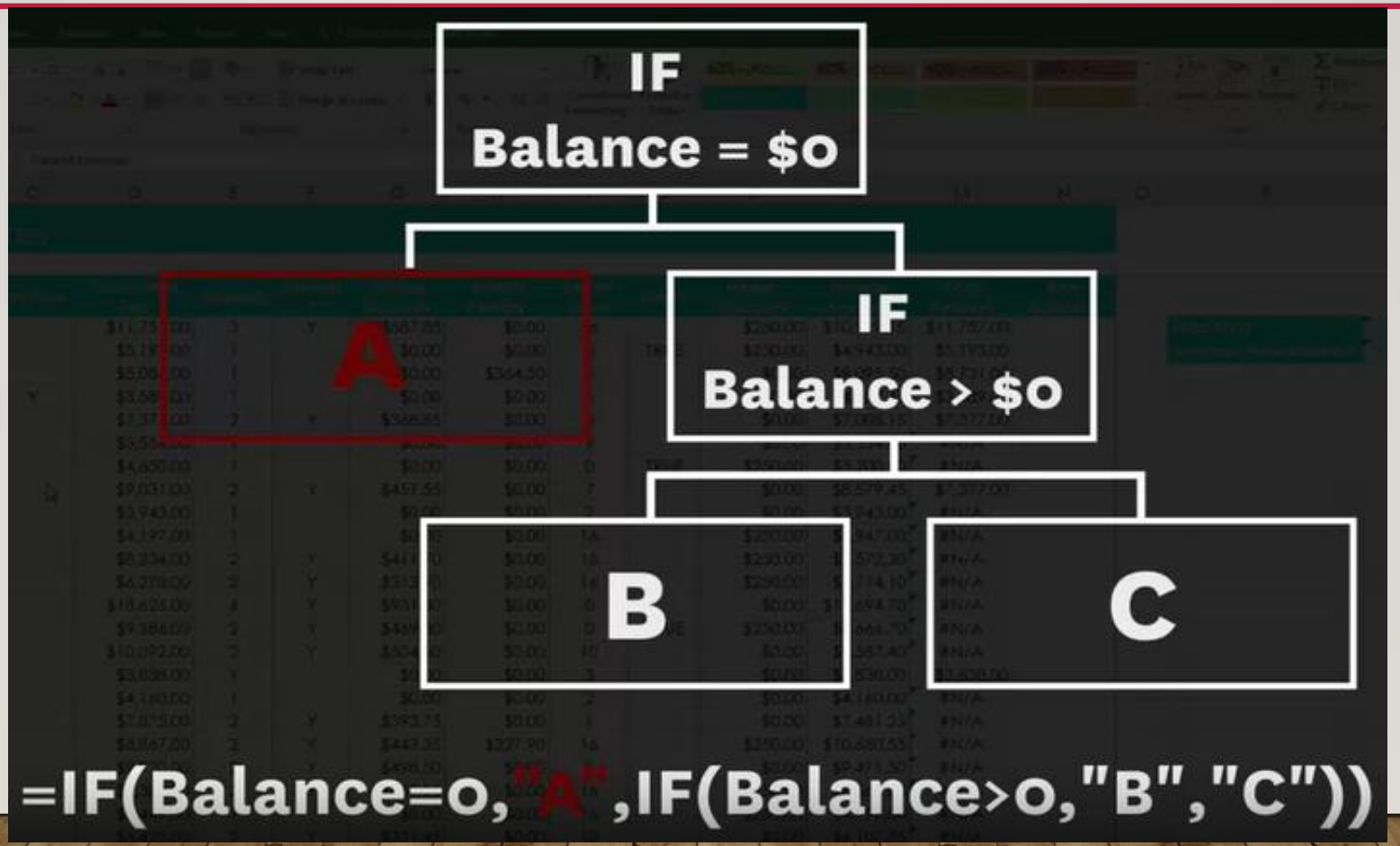

=IF(AND(logical1,logical2,...),[value_if_true],[value_if_false])
=IF(OR(logical1,logicl2,...),[value_if_true],[value_if_false])

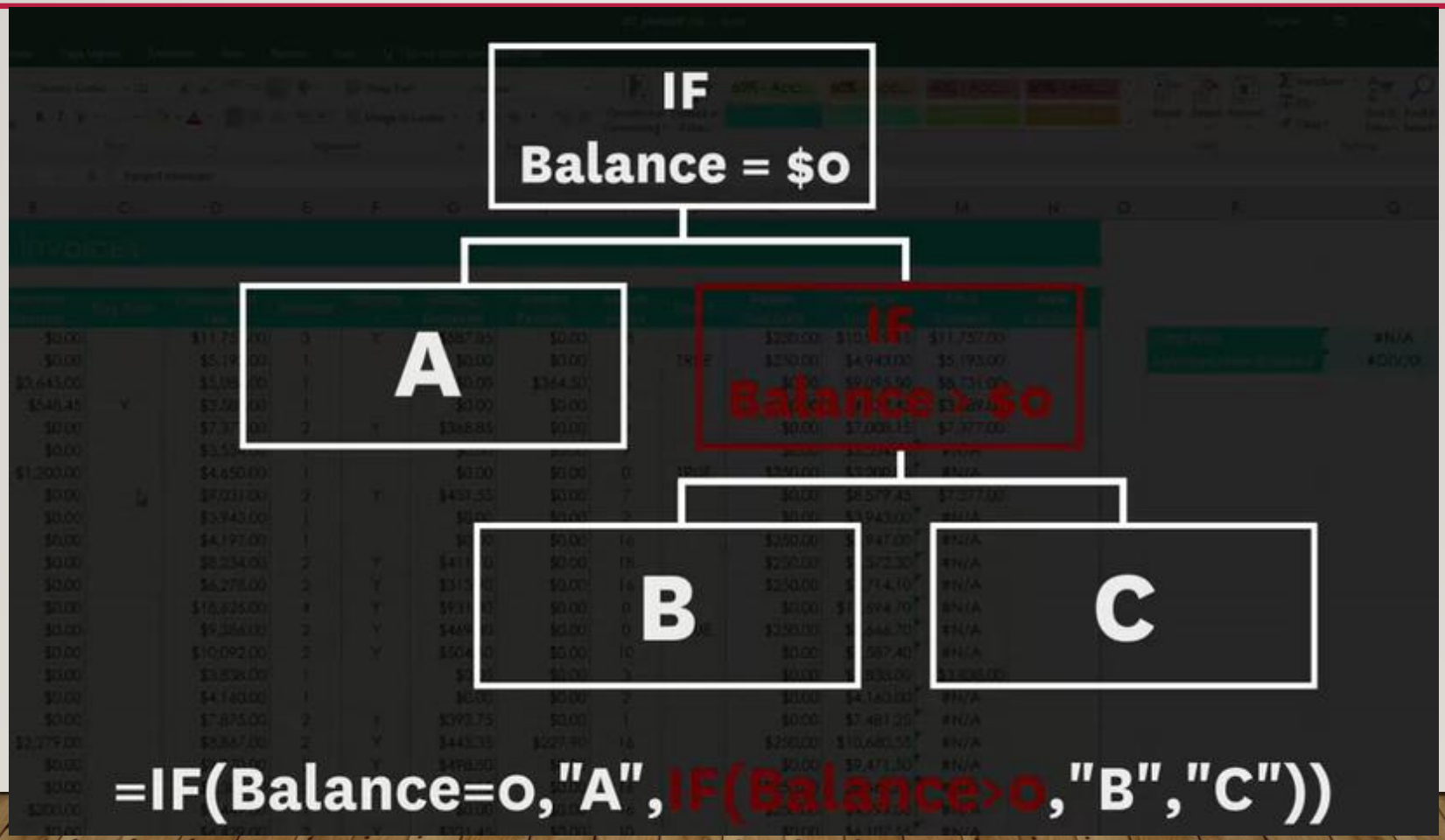

=IF(AND(logical1,logical2,...),[value_if_true],[value_if_false])

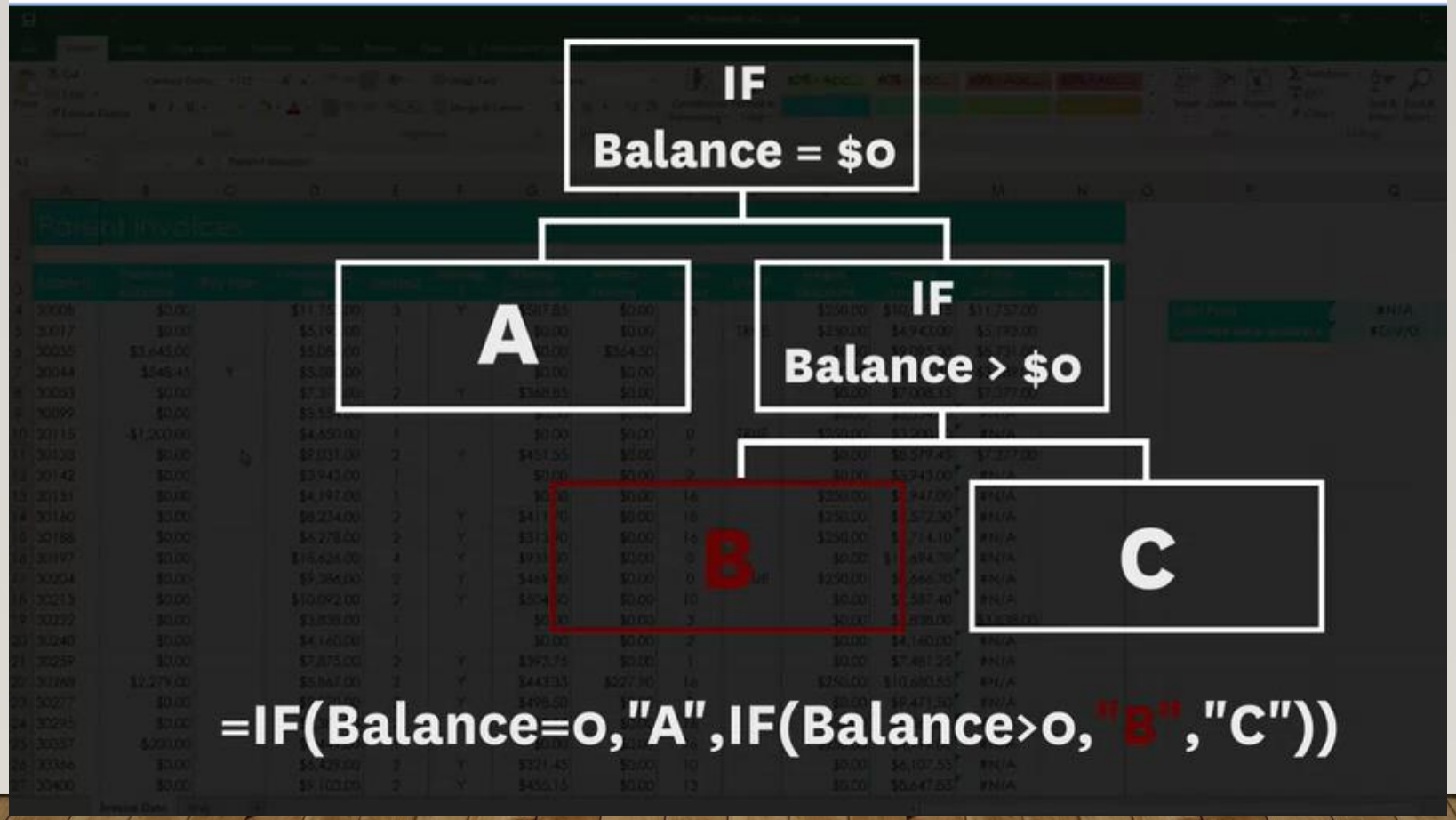
4. LOGICAL FUNCTIONS: NESTED IFS

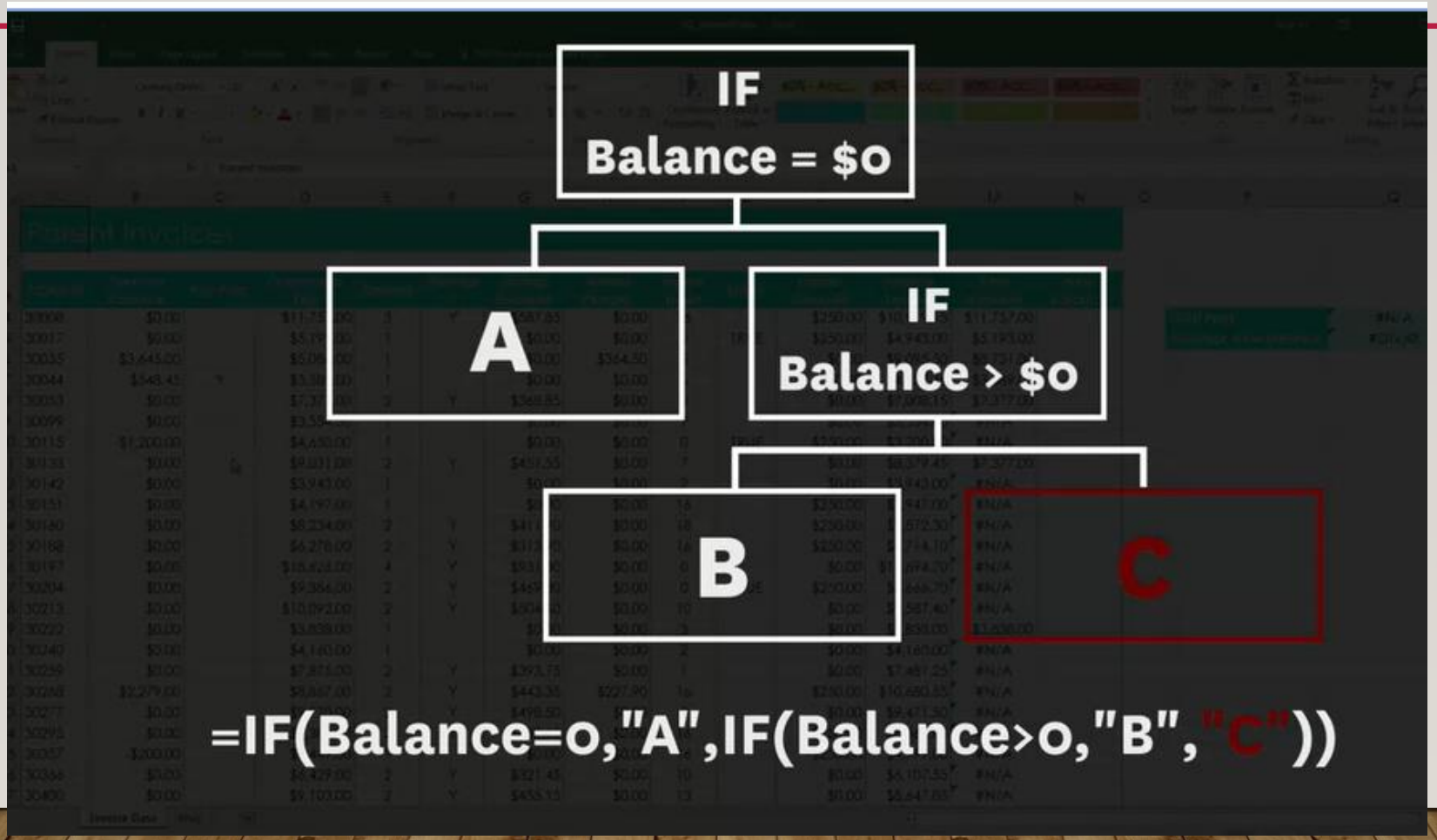

=IF(logical test,[value_if_true],[value_if_false])


IF
Balance = $0
A
IF
Balance > $0
B
C
=IF(Balance=0,"A",IF(Balance>0,"B","C"))


IF
Balance = $0
A
IF
Balance > $0
B
C
=IF(Balance=0,"A",IF(Balance>0,"B","C"))


IF
Balance = $0
A
IF
Balance > $0
B
C
=IF(Balance=0,"A",IF(Balance>0,"B","C"))


IF
Balance = $0
A
IF
Balance > $0
B
C
=IF(Balance=0,"A",IF(Balance>0,"B","C"))


IF
Balance = $0
A
IF
Balance > $0
B
C
=IF(Balance=0,"A",IF(Balance>0,"B","C"))

5. LOGICAL FUNCTIONS: IFERROR AND IFNA

- #DIV/0! – Means basically you are trying to divide something by zero.

- #N/A – this actually stands for Not Applicable, it does not find something you are looking for.

B. 1 LOGICAL FUNCTION: NOT

- The function helps to check if one value is not equal to another. If we give TRUE, it will return FALSE and when given FALSE, it will return TRUE. So, basically, it will always return a reverse logical value.
- As a financial analyst, the NOT function is useful when we wish to know if a specific condition was not met.
- **Formula: =NOT(logical)**
- Where, **Logical** (required argument) – The argument should be a logical or numerical value. If the given logical argument is a numeric value, zero is treated as the logical value FALSE and any other numeric value is treated as the logical value TRUE.

B. 1 LOGICAL FUNCTION: EXACT

- The Microsoft Excel EXACT function compares two strings and returns TRUE if both values are the same. Otherwise, it will return FALSE.

Formula: =EXACT(logical)

Returns

- The EXACT function returns TRUE if the two strings are the same.
  The EXACT function returns FALSE if the two strings are different.

B. ASSIGNMENT

- Follow up ORTUS attachment and complete the exercise.
- First download Excel workbook and then start to preview of Task then answer question.
- Following columns shall be completed:
- X, Y, Z, AA, AB, AF, AG, AH and AI

PRACTICAL ASSIGNMENT NR. 1

- We would like to make a courtesy phone call to customers who may not be aware of our Express delivery option. Some customers who consider their orders to be urgent, do choose an express mode of delivery, while others do not. We would also like more senior members of staff to make these calls if these orders are generating a lot of revenue for our company. In this regard, there are two proposals to evaluate which orders are the most valuable for our company.

QUESTION 1

- We want to figure out which orders are considered urgent by our customers. This is to be judged by whether they specify that their orders are **High** priority or **Critical** priority, or if they choose **Express Air** for delivery.
- Populate column **X** so that it shows **TRUE** if they classify their order as **High** or **Critical** or if they have chosen **Express Air** as the mode of shipment. At the top of the column, count the number of cases for column **X**. Report this number here.
- =IF(OR(I3="High",I3="Critical",M3="Express Air"),1,"")

QUESTION 2

- We want to figure out which customers who consider their orders to be urgent, actually choose an urgent method of delivery.
- Populate column **Y** so that it shows **TRUE** if they classify their order as **High** or **Critical** AND they have chosen **Express Air** as the mode of shipment. At the top of the column, count the number of cases for column **Y**. Report this number here.
- =IF(AND(M3="Express Air",OR(I3="High",I3="Critical")),1,"")

QUESTION 3

- We want to figure out which orders are considered **Medium** priority or higher.
- Populate column **Z** so that it shows TRUE if they classify their order as **Medium** or **High** or **Critical**. At the top of the column, count the number of cases for column **Z**. Report this number here.

- =IF(OR(I3="Medium",I3="High",I3="Critical"),1,"")

QUESTION 4

- Which customers are not choosing Express Air for their delivery?
- Populate column **AA** so that it shows TRUE if they do not choose Express Air as the mode of shipment. Hint: The function **NOT**(condition) gives the opposite result, which may be useful here. At the top of the column, count the number of cases for column **AA**. Report this number here.
- =IF(M3="Express Air","",1)

or

- =NOT(M3="Express Air") then =COUNTIF(AA3:AA1041,"TRUE")

QUESTION 5

- We want to call the customers who have priorities that are **Medium** or higher (**Medium**, **High** or **Critical**) but do not choose **Express Air** for delivery.
- Populate column **AB** so that it shows "Call" if BOTH column **Z** AND **AA** are TRUE or "Do Not Call" otherwise. At the top of the column, count the number of customers we are going to call. Report this number here.

- =IF(AND(Z3=1,AA3=1),1,"")

QUESTION 6

- We also want to calculate the average time spent on calls per order number, but we don't want an error message to appear if the call has not been made, but rather say "not called yet".
- Populate column **AF** so that it shows, if they were a client to be called, the average duration of the calls made to them. If an error results from this calculation because there have been no calls yet made, report "not called yet". If they were not a customer to call, leave the cell blank.
- At the top of the column, calculate the average of this column and report the result here, to 2 decimal places. Use #.## number format.
- =IF(AND(AD3>0,AE3>0,AB3=1),AE3/AD3,"")

QUESTION 7

- We would like to see which of our orders are generating the most revenue. If an order has an **Order Total** of more than $1,000, we will call this a "Star" order.
- Populate column **AG**: **Star Order Proposal A** with the value "Star" if the **Order Total** is more than $1,000. If it is not, the cell should simply remain blank. How many "Star" orders are there?
- =IF(W3>1000,1,"")

QUESTION 8

- A consultant asks us to consider **Star Order Proposal B** which classifies orders according to "5 Star" (more than $1,000), "4 Star" (more than $500, up to $1000) and simply blank ($500 or below).
- Populate column **AH** with the values specified above. How many "4 Star" orders are there?

- =IF(AND(W3>500,W3<1000),1,"")

QUESTION 9

- We would like the Deputy Sales Manager to make the courtesy call if the order is a "Star" order, and we have flagged the order as a call that needs to be made.
- If they are a "customer to call" and they are a "Star" order (according to Proposal A), then we want the Deputy Sales Manager to call them.
- Populate column **AI**: **Deputy Manager to Call** with an appropriate **IF** statement. How many calls will the Deputy Sales Manager have to make?
- =IF(AND(AB3=1,AG3=1),1,"")

THANK YOU