VLOOKUP, HLOOKUP & INDEX/MATCH

Obtain Data

Combining Data Sources

Analyze

Presenting Findings

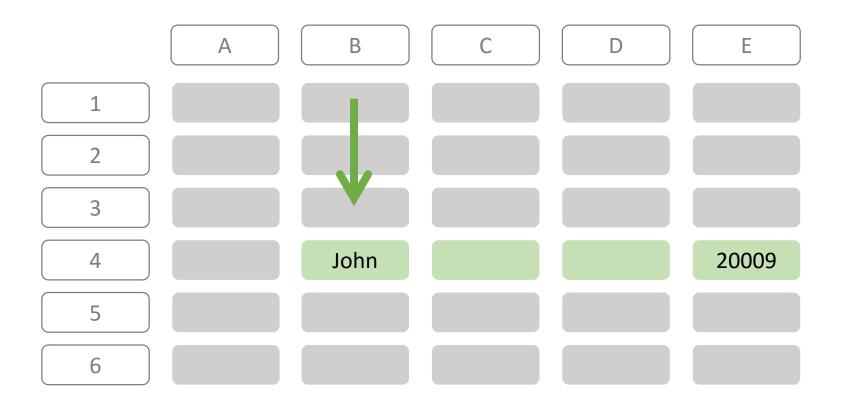
Objectives:

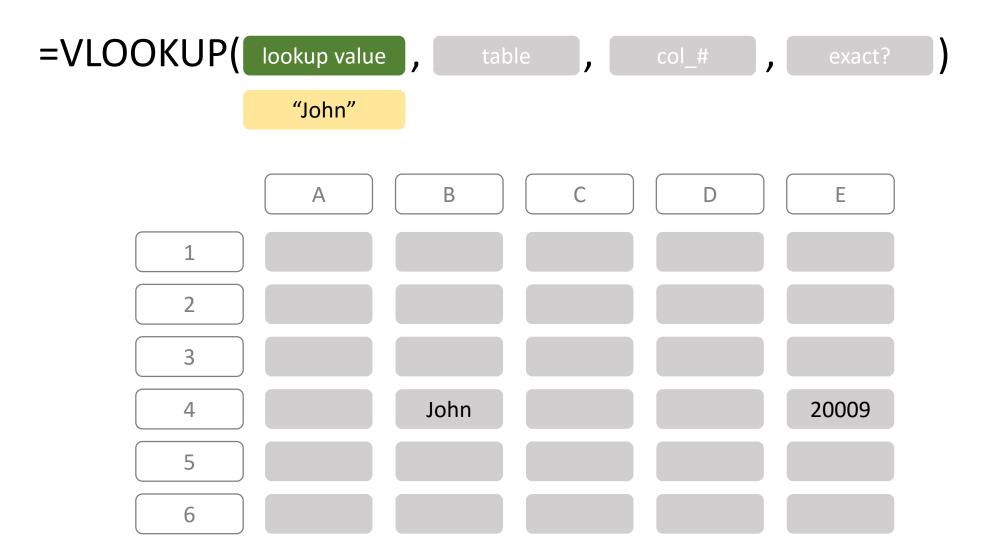
Know how to

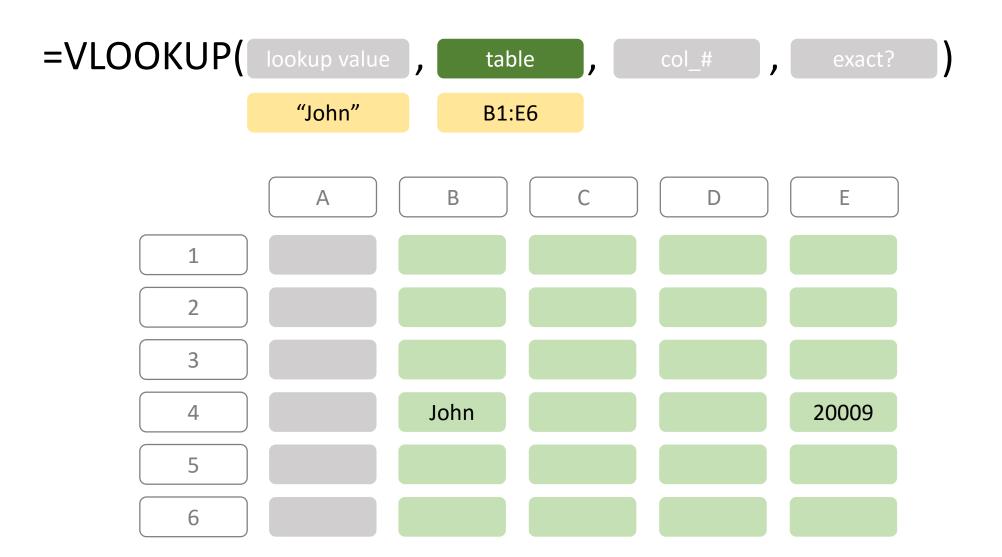
- combine data tables
- look up specific values

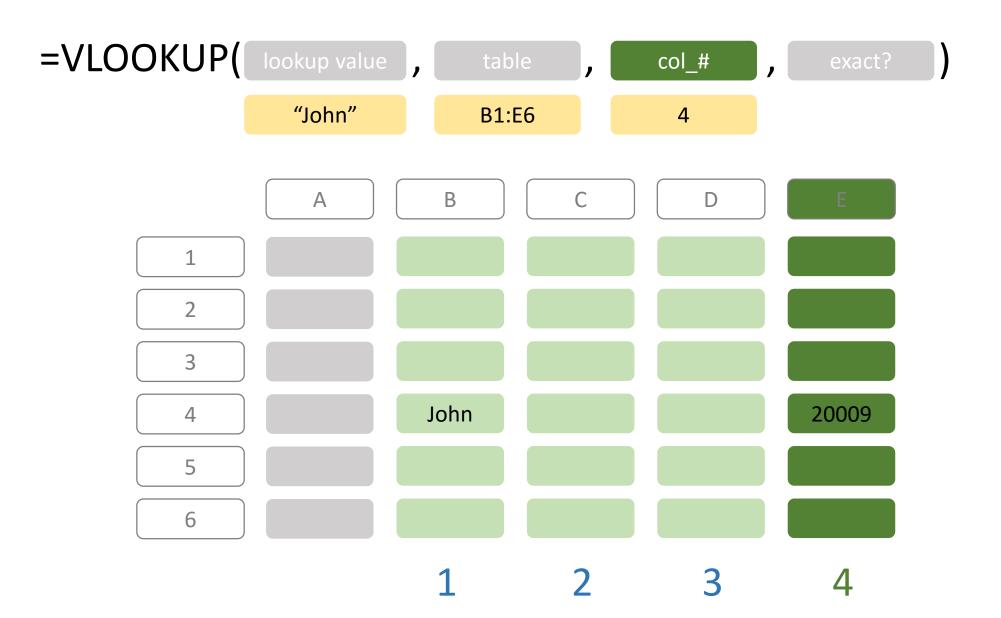
using formulas in Excel

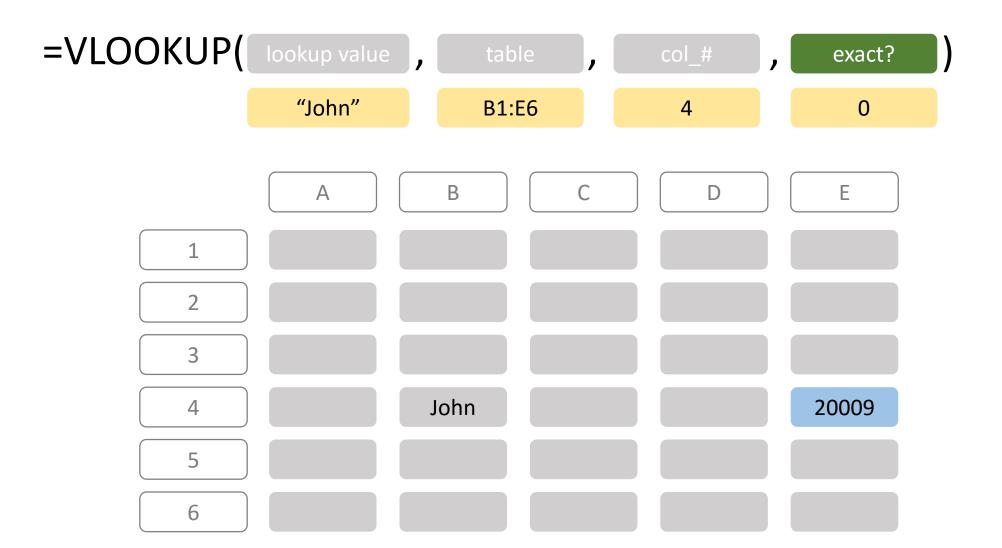
=VLOOKUP(lookup value , table , col_# , exact?











Summary

• **VLOOKUP**: Find "ABC" in the **first column**, returns value 'X' columns to the right

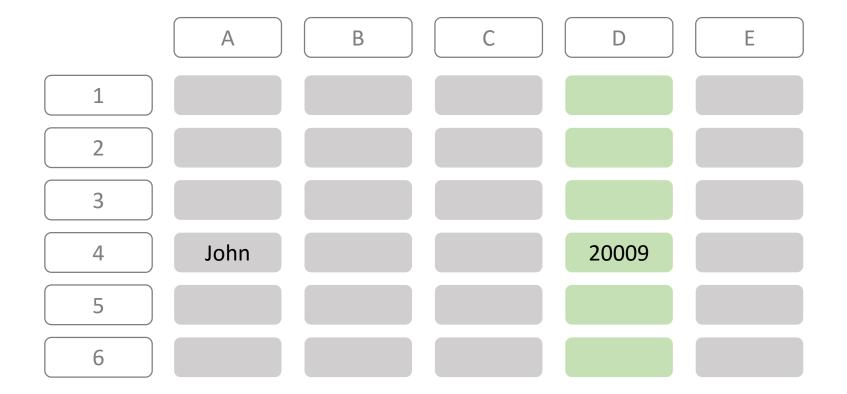
• HLOOKUP: Find "ABC" in first row, return value 'X' rows down

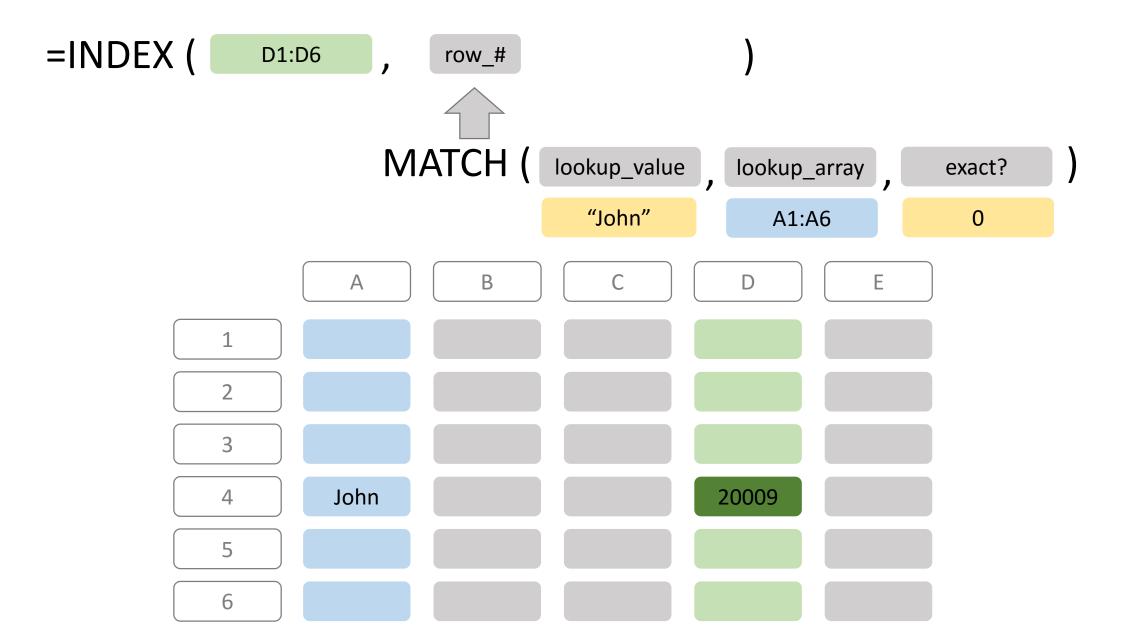
Activity #1

- Remember relative references (\$A\$1:\$A\$2) as appropriate
- Don't forget the "exact match" field!

INDEX/MATCH – A better way!

```
=INDEX ( array , row_# , [col_#] )
D1:D6 ???? <skip>
```





=INDEX ("answer" , MATCH (what to find , "search" always exact! (0)))

Activity

- Remember relative references (\$A\$1:\$A\$2) as appropriate
- Watch out for the "exact match" fields!

Advanced

• When would VLOOKUP fail?

Two Dimensions

• Multiple search criteria – "John" and "Doe"

Advanced

When would VLOOKUP fail?

- Can't look backwards
- If you rearrange columns, formulas break
- Formula audit less clear when inspecting
- Two Dimensions use a MATCH in both the 'row' and 'column' fields of INDEX
- Multiple search criteria "John" and "Doe"
 - "Helper" columns
 - SUMPRODUCT (if getting numbers)
 - OFFSET