### IF() statements

Let’s practice on the commissions worksheet

* Column D: We can find which rep has >50 clients with a simple IF() statement: =IF(C2>50,"Yes","No")
* Column F: We want to basically “back out” the region from the District. If region is 1, 3 or 5, it’s District A, otherwise B.
  + This is like an IF() statement but with one more layer:
  + =IF(OR(E2=1, E2 = 3, E2 = 5),"A", "B")
* We could also combine this with a NOT() statement to find which stores are new, i.e. NOT old:
  + =IF(NOT(OR(E2=1,E2=2)),"X","")
* Finally, we could use an AND() statement to meet multiple criteria:
  + Column I: =IF(AND(B2>75000,H2>4.75),"X","")
  + Let’s practice on Column J: How can we flag which reps have fewer than 40 clients and a satisfaction score of <4?
    - =IF(AND(C2<40,H2<4),"X","")
* Return to slides to cover IFS()
* Let’s calculate the commission using the commission schedule over to the side. Based on a certain satisfaction score the rep gets a certain commission
  + We can do this gracefully with IFS():

=IFS(H2>4.5,0.1,

H2>4.25,0.05,

H2>4,0.03,

TRUE,0)

Find the following with conditional logic:

* Write the full studio name Pixar or Dreamworks from P or D
* Get the letter grade using the typical grading system
* Movies with >$500M gross and >90% rating are “Hits”
* Movies with <$350M gross OR <50% rating are “Duds”
* Also answer the questions at bottom of worksheet (*Hint:* Try COUNTIF() for last question!)

### IFS() and conditional aggregation

Let’s use conditional aggregation to answer these questions about the data:

* =SUMIF(F2:F16,"A",B2:B16)
* =COUNTIF(C2:C16,">50")
* =AVERAGEIF(H2:H16,"> 4.7",L2:L16)
* =AVERAGEIF(H2:H16,">= 4.7",L2:L16)
* =COUNTIFS(L2:L16,">5000",H2:H16,">4.5",C2:C16,">50")
* =SUMIFS(L2:L16,E2:E16,4,B2:B16,">50000")
* =AVERAGEIFS(L2:L16,C2:C16,"<50",H2:H16,">4.0")