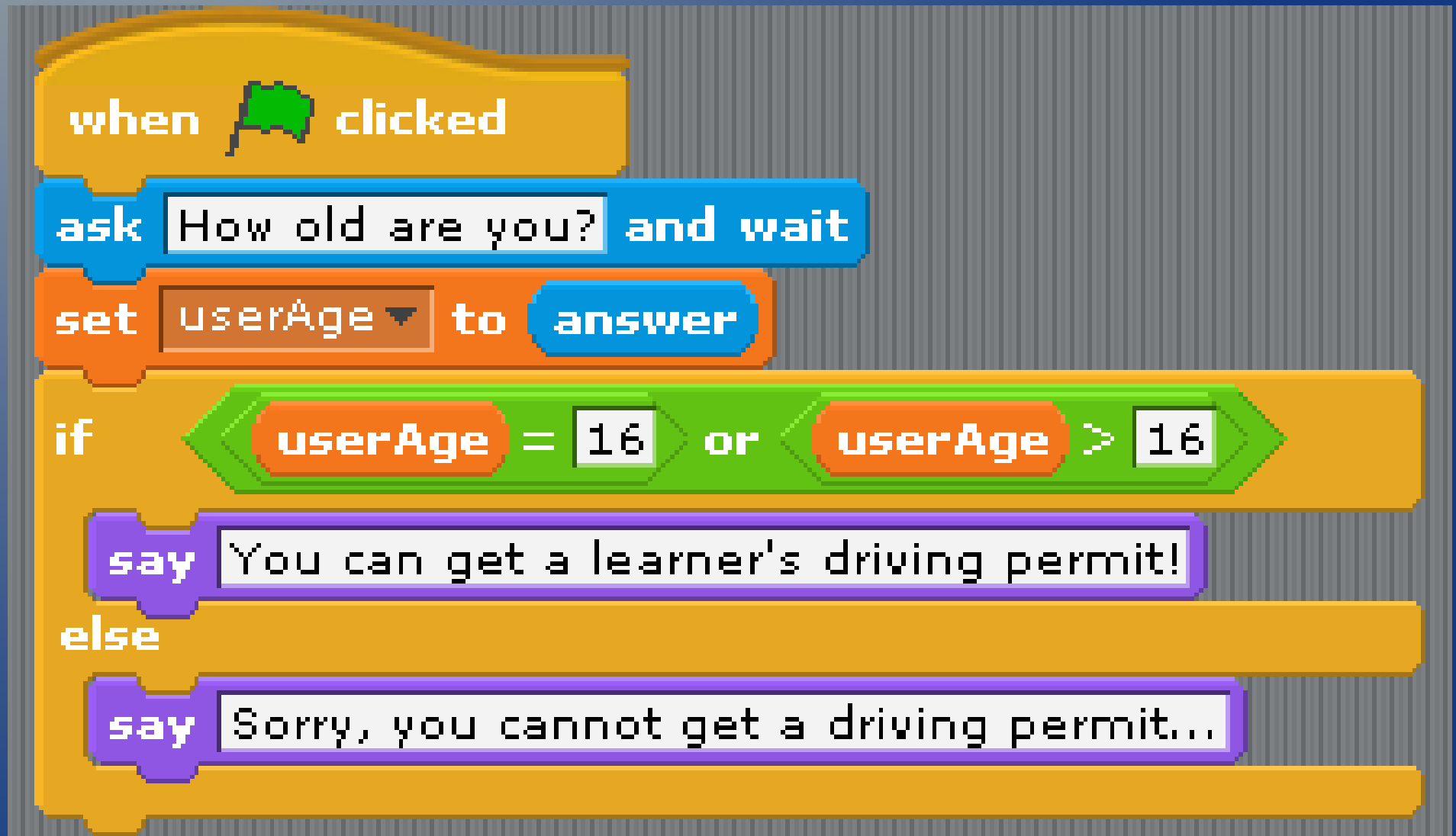


# Recall: A Selection Statement



```
when clicked
ask How old are you? and wait
set userAge to answer
if userAge = 16 or userAge > 16
say You can get a learner's driving permit!
else
say Sorry, you cannot get a driving permit...
```

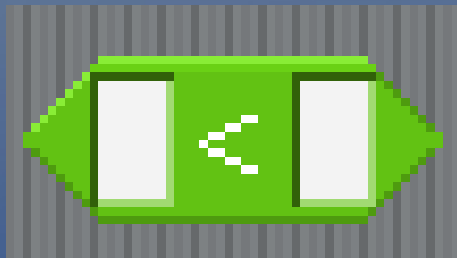
The image shows a Scratch script with the following blocks:

- when clicked** (yellow)
- ask How old are you? and wait** (blue)
- set userAge to answer** (orange)
- if** (yellow) containing a green arrow-shaped block with the condition **userAge = 16 or userAge > 16**
- say You can get a learner's driving permit!** (purple)
- else** (yellow)
- say Sorry, you cannot get a driving permit...** (purple)

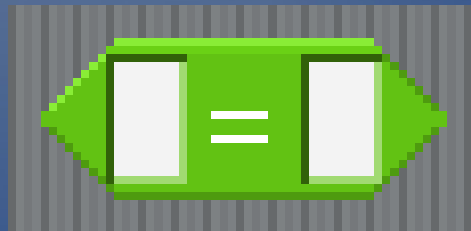
# Recall: Comparison Operators

Making a decision using selection requires a comparison between two quantities or values.

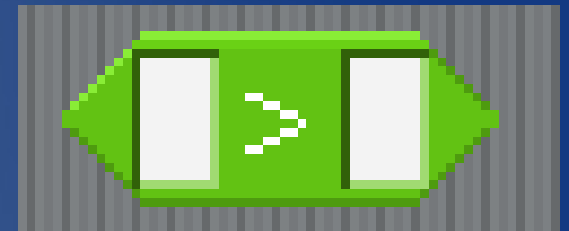
Each comparison will use one of the comparison operators. There are three basic types in Scratch.



the first value  
is LESS THAN  
the second  
value



the first value  
is EQUAL TO  
the second  
value

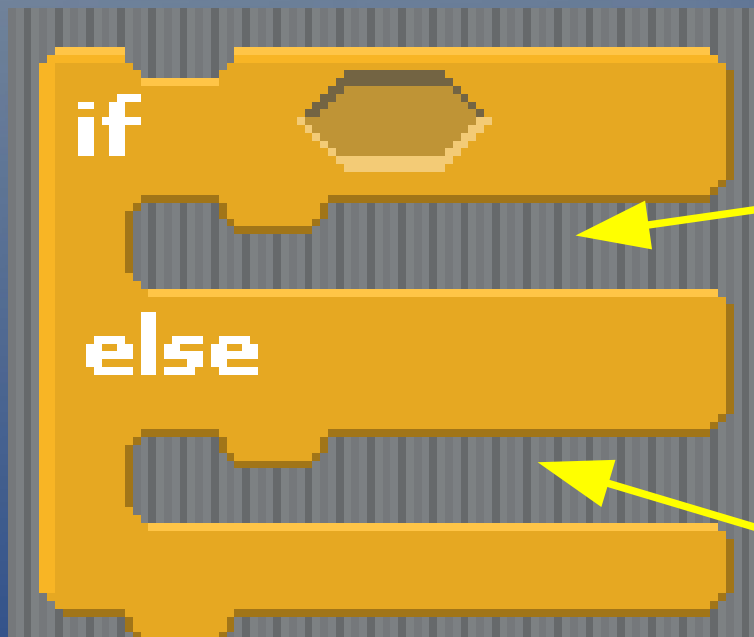


the first value  
is GREATER  
THAN the  
second value

# Recall: IF/ELSE Statement

## Two Selections

- To select between two options, add the ELSE branch to the IF statement

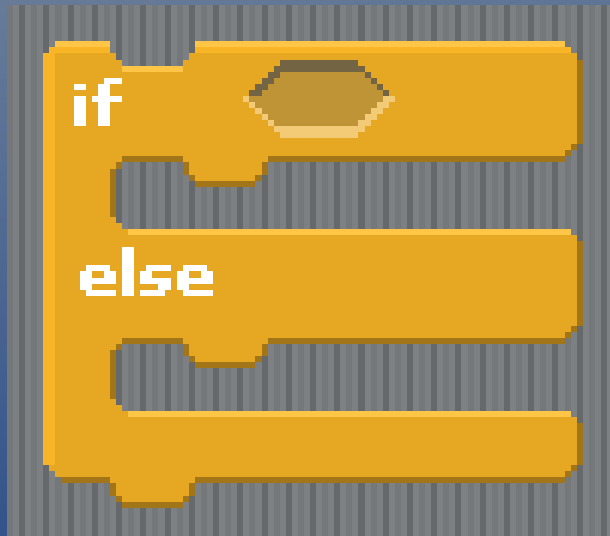


if the condition is TRUE, run the commands inside the block

if the condition is FALSE, run the commands inside the block

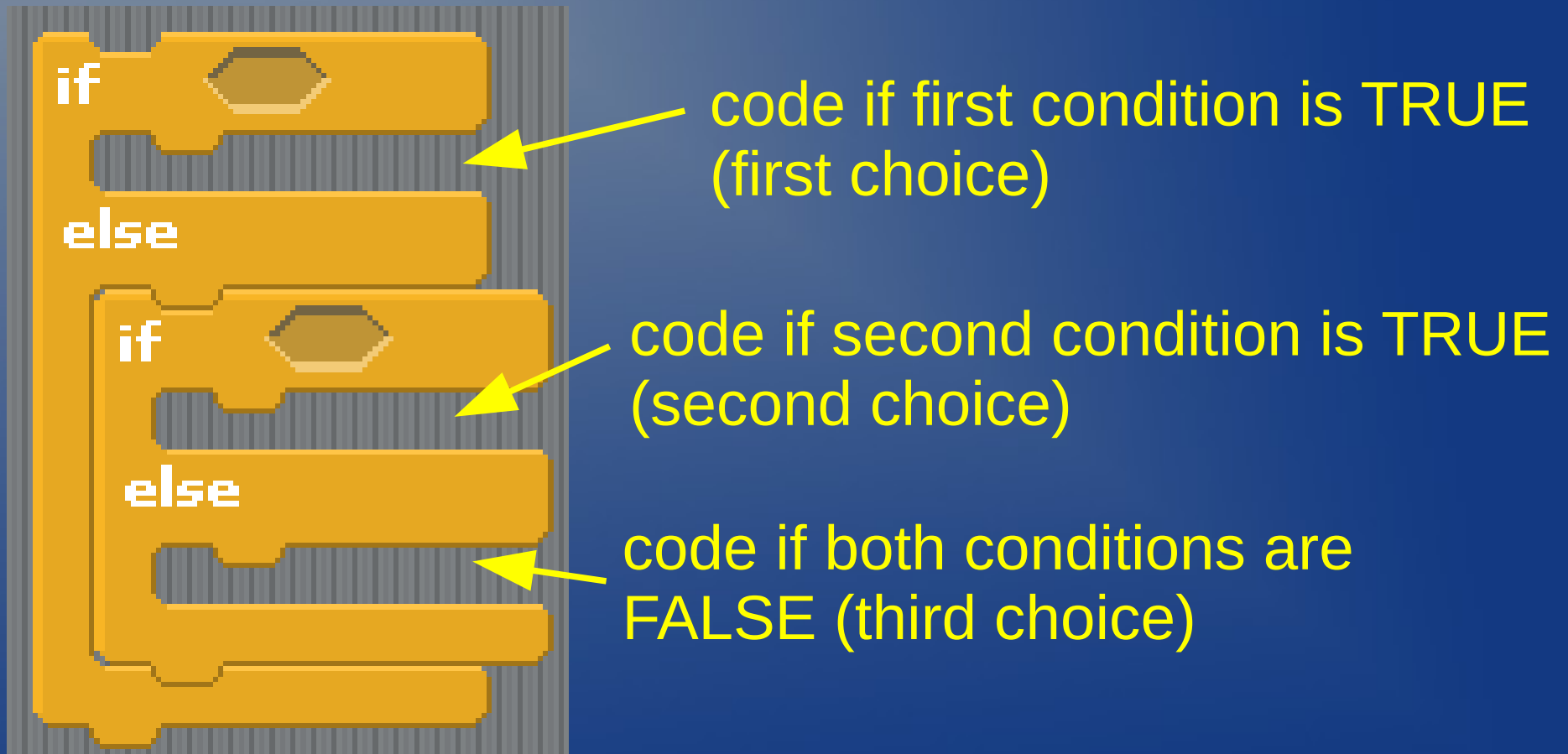
# What About More Than Two Choices?

- standard if/else block has two choices
- to add more choices, we 'nest' additional if/else blocks

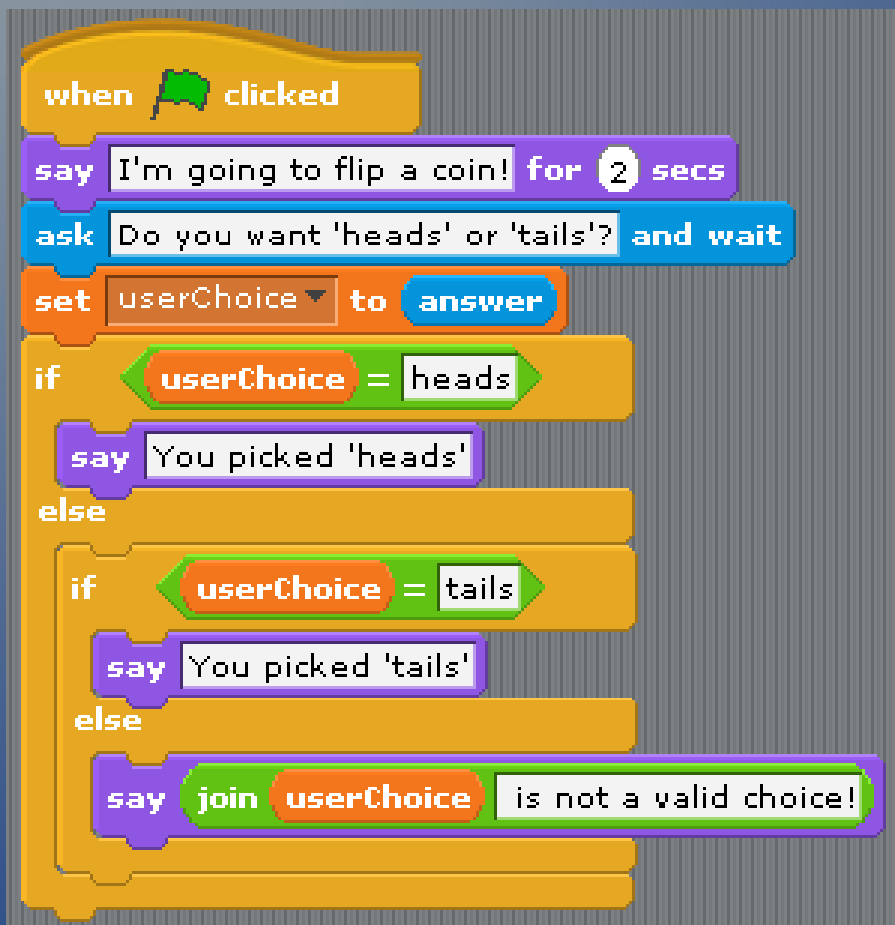


# Nested if/else Blocks

- usually add nested blocks to the 'else' branch of the previous block



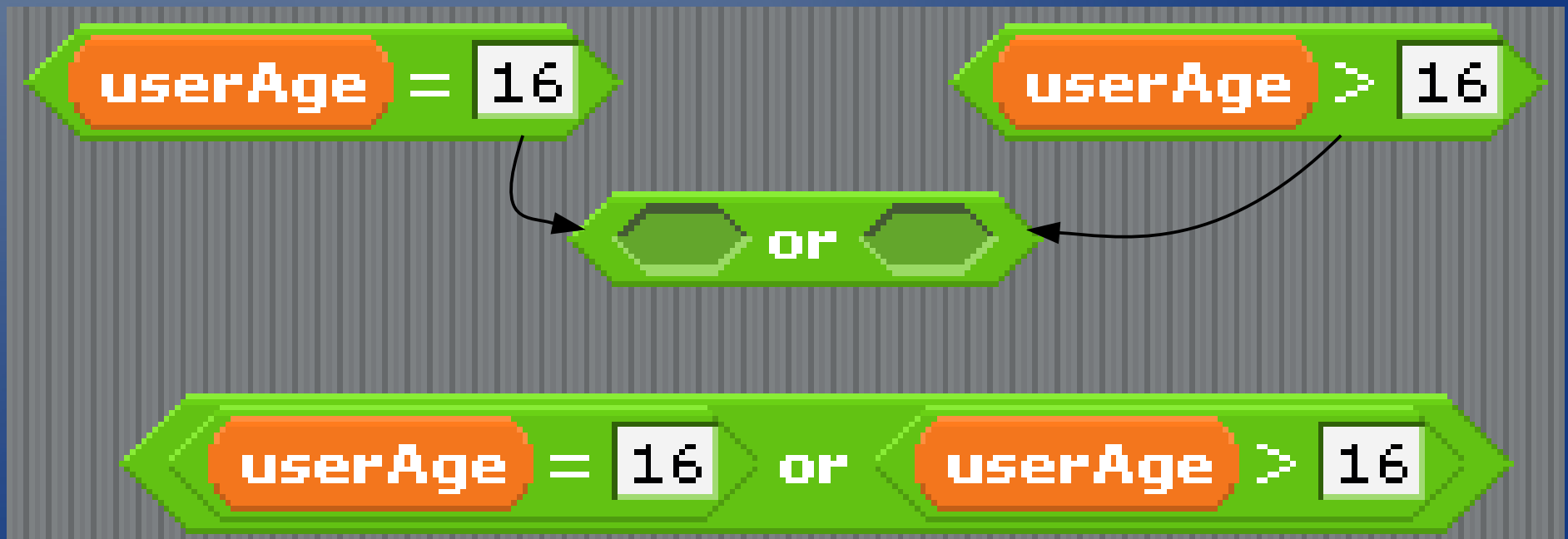
# Example – Three Choices



- if the user types 'heads', the first condition is true
- if the user types 'tails', the first condition is false, but the second is true
- anything else and both conditions are false

# Recall: Boolean Logic Operators

- Sometimes, our comparisons are more complicated.
- For example, to get a driver's permit, you need to be 16 years old **OR** older



# Boolean Logic Operators

Recall: An IF statement will execute the first branch if the condition is TRUE. Here is how each boolean operator becomes TRUE:

- OR... at least one condition must be TRUE
- AND... all conditions must be TRUE
- NOT... the condition must be FALSE

