COMPUTER PROGRAMMING

DECISION INSTRUCTION - 1

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DECISION INSTRUCTION

- Relational and Logical Operators
- If Blocks
- Select Case Blocks

Adapted from: https://www.coursehero.com

Relational and Logical Operators

- ANSI Values
- Relational Operators
- Logical Operators
- Boolean Data Type

Condition

- A **condition** is an expression involving relational and/or logical operators

- The value of the condition is Boolean – that is, **True** or **False**

ANSI Character Set

A numeric representation for every key on the keyboard and for other assorted characters.

32 (space)	48 0	66 B	122 z
33 !	49 1	90 Z	123 {
34 “	57 9	97 a	125 }
35 #	65 A	98 b	126 ~

ANSI Character Set (continued)

A numeric representation for every key on the keyboard and for **other assorted characters**.

162 ¢	177 ±	181 µ	190 ¼
169 ©	178 ²	188 ¼	247 ÷
176 °	179 ³	189 ½	248 ø

Chr Function

For *n* between 0 and 255,

```
Chr(n)
```

is the string consisting of the character with ANSI value *n*.

Examples: `Chr(169)` **is** ©

`Chr(162)` **is** ¢

Asc Function

For a string *str*,

`Asc(str)`

is ANSI value of the first character of *str*.

Examples: **`Asc("B")`** is **`66`**

`Asc("b")` is **`98`**

Relational Operator

- Relational operators are binary – they require an operand on both sides of the operator
- Value of a relational expression will always be True or False

<	less than
<=	less than or equal to
>	greater than
>=	greater than or equal to
=	equal to
<>	not equal to

Boolean Expression

- An expression that evaluates to either True or False is said to have Boolean data type.
- Example*:*

  The statement

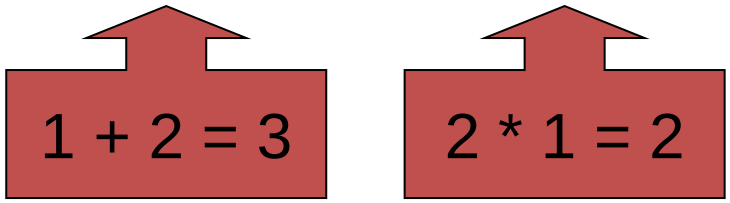
```
Textbox1.Text = CStr((1 + 2) < 4)
```

  displays True in the text box.

Example

When a = 1, b = 2

(a + b) < 2 * a



3 is NOT less than 2 and so the value of the expression is **False**

Logical Operators

Used with Boolean-valued expressions

- ***Not*** – makes a False expression True and vice versa
- ***And*** – will yield a True if and only if both expressions are True
- ***Or*** – will yield a True if one of both expressions are True