

# Javascript basics pt2

## Comparison operators

1.  $==$   $\rightarrow$  true (1)  
false (0)

$\equiv$  let  $x = \text{Ram}$

let  $a = 5$   
let  $b = 7$   
 $5 == 7$   
 $\rightarrow$  false

$a == b$   
 $5 == 5 \rightarrow$  true

thing  $\rightarrow$  Ram  
 $x$

Ex:  $\left\{ \begin{array}{l} \text{let } a = \text{"Ram"} \\ \text{let } b = \text{"shyam"} \end{array} \right.$   
 $a == b \rightarrow$  false

Same  $\rightarrow$  true  
different  $\rightarrow$  false

Ex: let  $a = \text{false}$   
let  $b = \text{false}$   
 $a == b$   $\rightarrow$  true  
 $\text{true} == \text{false}!$   
 $\text{false} == \text{false}$

Ex: let  $a = 5$   
let  $b = 5$   
 $a == b ?$  false  
 $\text{int } 5 == \text{string } 5 \rightarrow$  true

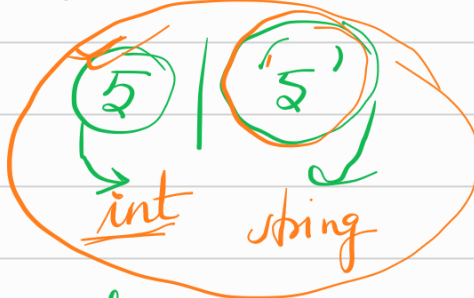
2.  $===$   
let  $a = 5$   
let  $b = 5$   
 $a === b \rightarrow$  true  
 $\text{"Ram"} === \text{"shyam"}$   
false

$===$   $\rightarrow$  90%

$(===)$  → checks type (datatype)

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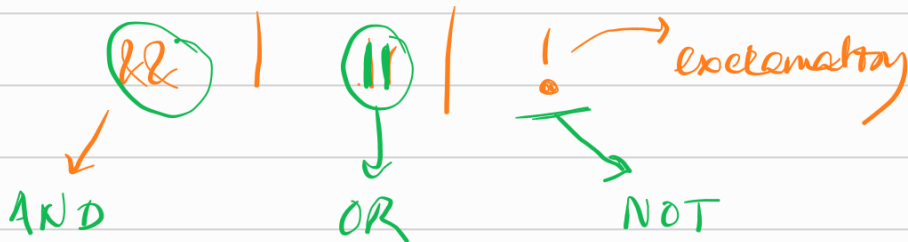
$(==)$  → doesn't



Ex: let a = 5 }  $a === b$  ? false  
let b = '5' }  $a == b$  ? true

Ex: let a = true }  $a === b$  ? false  
let b = 1 }  $a == b$  ? true

## • Logical operators



$A = 1$   
 $B = 0$  }  $A \cdot B = 1 \cdot 0 = 0$   
                  -  $B = 1 + 0 = 1$   
                  OR

$A = \text{true}$   
 $B = \text{false}$  }  $A \&\&B \rightarrow \text{false}$   
                   $A \parallel B \rightarrow \text{true}$   
                   $!A \rightarrow \text{false}$   
                   $!B \rightarrow \text{true}$

## • Assignment operators

1.  $(=)$  }  $x = \text{'Ramu'}$  Ramu  
 $x$

2.  $(+=)$  }  $x += 3$  }  $x = x + 3$  } Ex:  $x = 10$   
 $x += 3$   
 first addition then assign  
 Console.log(x);  
 $a = x + 3$   
 $= 10 + 3$   
 $a = 13$   
 first add  
 assign  
 $x = a$

Ex: let  $x = 15$   
 $x -= 9$   
 Console.log(x)  
 subtraction

$x = 15$   
 $a = x - 9$   
 $15 - 9 = 6$   
 $x = a$   
 $= 6$   
 sub  
 assign  
 assign

$x = 20$  }  $x = 17$   
 $x += 1$  }  $x -= 5$   
 $x = 17 - 5$   
 $x = x - 5$   
 $= 17 - 5$   
 $= 12$

mult  $(*=)$  } assign  
 $x = 5$   
 $x *= 5$   
 $\Rightarrow x = x * 5$   
 $= 5 * 5$   
 $= 25$

$/=$  }  $x = 10$   
 $x /= 2$   
 $\Rightarrow x = x / 2$   
 $= 10 / 2$   
 $= 5$

$\%$   
 $\rightarrow x = 10$  }  $x = 9$   
 $x \% 2$  }  $x = 1$

$$\begin{array}{l|l} x \% 5 = 3 & j = 2 \\ \Rightarrow x = 1 & x \% 5 = 7 \\ & x = 1 \end{array}$$

