CompSci 94Random Numbers, MakinDecisions with If statemenSeptember 15, 2020Image: Image of the statement hereImage of the statement here <th>C</th> <th> Have y QZ09 du Don't ge </th> <th>Announcements is Sept 29 nent 3 due Sept 22 you started yet? ne Thursday – 10:15am et behind, be sure to check for Classwork</th> <th>your grades</th>	C	 Have y QZ09 du Don't ge 	Announcements is Sept 29 nent 3 due Sept 22 you started yet? ne Thursday – 10:15am et behind, be sure to check for Classwork	your grades
9/15/20 CompSci 94 Fall 2020	1	9/15/20	CompSci 94 Fall 2020	2
Constant Variable • What is a constant variable?		Random Numbers • What is a random number?		
• How do you create a constant variable in	 In Alice, how does one get a random number in an instruction? This.panda T move FORWARD T, EnextRandomRealNumberInRange E0.5 T, E0.TT 			
• How do you use a constant variable?		Give examples of numbers in this range? This.panda move FORWARD T, EnextRandomRealNumberInRange 55 T, 52.0 T		
9/15/20 CompSci 94 Fall 2020	3	9/15/20	CompSci 94 Fall 2020	5

] [
possibili	Random Integers any different integers are a ity with this statement?	cludingB 27, 297)	• What ty statemen	If statements pes can you compare in an int?	if
9/15/20	CompSci 94 Fall 2020	7	9/15/20	CompSci 94 Fall 2020	9
if [2 (this.panda (this.panda) else	Panda distanceTo this code do when it execute getDistanceTo (this.bunn) > 2.0 moveToward (this.bunn) = 2.0 add say (Tm here) add detail		• How does	line w/ Panda distan one create first line of this getDistanceTo (this.bunny) > 2.0 moveToward (this.bunny), 2.0 a say (There's add detail)	code?
9/15/20	CompSci 94 Fall 2020	11	9/15/20	CompSci 94 Fall 2020	13

Making decisions - If statement What happens when this If executes? • What happens when this code runs? (this.bunny) isBehind (this.panda) add detail is true then if (this.panda) getPaint # ERED I is true then if) (this.bunny) turn [RIGHT], 20.5), asSeenBy (this.panda) (this.panda) setPaint [RED] add detail else else (this.panda) turn [RIGHT], 20.5], asSeenBy (this.bunny) (this.panda) setPaint DBLUE add detail this.panda getPaint ≠ [RED] is true then if) (this.panda) setPaint [RED] add detail else (this.panda) setPaint DBLUE add detail CompSci 94 Fall 2020 9/15/20 CompSci 94 Fall 2020 16 9/15/20 18

Execute a copy of the if again?

if [(this.bunny isBehind (this.panda) add detail) is true then
(this.bunn) turn CRIGHT t, 20.5 t, asSeenBy (this.panda)
else
(this.panda) turn CRIGHT , 50.5 , asSeenBy (this.bunny)

Execute a third copy of the if?

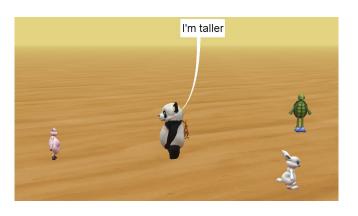
if I (this.bunny isBehind (this.panda) add detail	Is true then
(this.bunny turn CRIGHT , E0.5 , asSeenBy	(this.panda)
else	
(this.panda) turn CRIGHT , 20.5 , asSeenBy	(this.bunny)

9/15/20

20

Class Today

• Working with random numbers and making decisions



9/15/20

CompSci 94 Fall 2020

24