COMPSCI 94 Fall 2024 – Test 2 REFERENCE SHEET

DO NOT WRITE ANY CODE ON THE REFERENCE SHEETS!!!!

Math

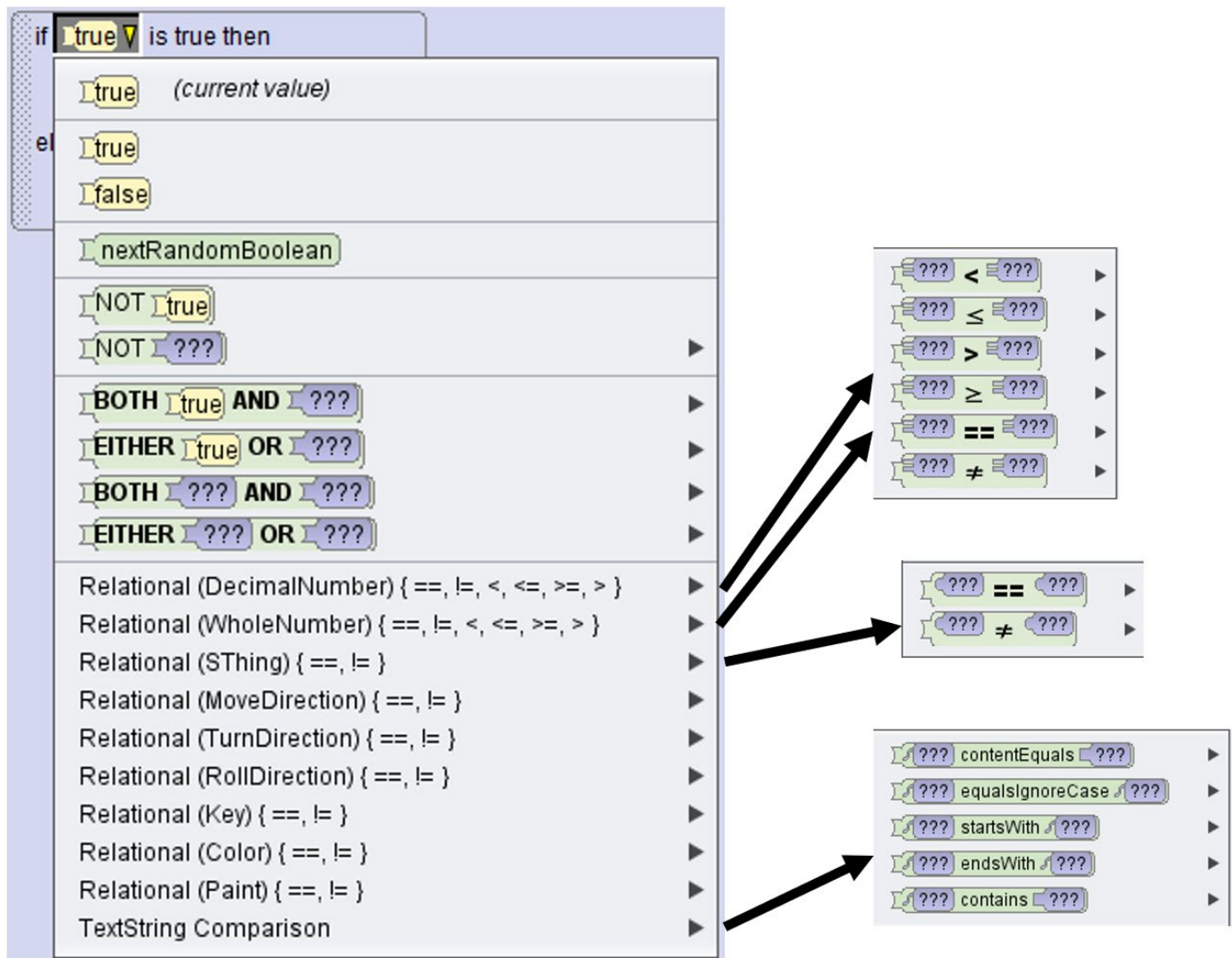Given below are the condition possibilities for an if statement

if ⌶true ▼ is true then

⌶true   *(current value)*

el ⌶true
    ⌶false

⌶nextRandomBoolean

⌶NOT ⌶true
⌶NOT ⌶ ??? ▶

⌶BOTH ⌶true AND ⌶ ??? ▶
⌶EITHER ⌶true OR ⌶ ??? ▶
⌶BOTH ⌶ ??? AND ⌶ ??? ▶
⌶EITHER ⌶ ??? OR ⌶ ??? ▶

Relational (DecimalNumber) { ==, !=, <, <=, >=, > } ▶
Relational (WholeNumber) { ==, !=, <, <=, >=, > } ▶
Relational (SThing) { ==, != } ▶
Relational (MoveDirection) { ==, != } ▶
Relational (TurnDirection) { ==, != } ▶
Relational (RollDirection) { ==, != } ▶
Relational (Key) { ==, != } ▶
Relational (Color) { ==, != } ▶
Relational (Paint) { ==, != } ▶
TextString Comparison ▶

??? < ??? ▶
??? ≤ ??? ▶
??? > ??? ▶
??? ≥ ??? ▶
??? == ??? ▶
??? ≠ ??? ▶

??? == ??? ▶
??? ≠ ??? ▶

??? contentEquals ??? ▶
??? equalsIgnoreCase ??? ▶
??? startsWith ??? ▶
??? endsWith ??? ▶
??? contains ??? ▶

Below are the tiles at the bottom of a **procedure**

do in order   count _   while _   for each in _   if _   do together   each in _ together
variable...   assign   //comment
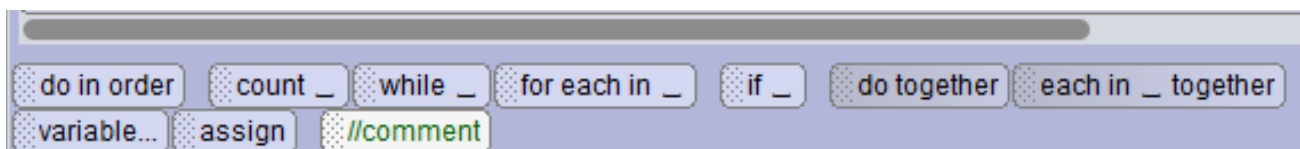
Given below are the panda procedures and panda Properties on the bottom right.

this.panda

Procedures Functions

group by category ▼

(Panda) 's Editable Procedures (3)

☐ edit   (this.panda **standingPose**
☐ edit   (this.panda **sleepingPose**
☐ edit   (this.panda **crawlingPose**

(Biped) 's Editable Procedures (0)

say, think

(this.panda **say** *text:* ???)
(this.panda **think** *text:* ???)

position

(this.panda **move** *direction:* ??? , *amount:* ???)
(this.panda **moveToward** *target:* ??? , *amount:* ???)
(this.panda **moveAwayFrom** *target:* ??? , *amount:* ???)
(this.panda **moveTo** *target:* ???)
(this.panda **place** *spatialRelation:* ??? , *target:* ???)

orientation

(this.panda **turn** *direction:* ??? , *amount:* ???)
(this.panda **roll** *direction:* ??? , *amount:* ???)
(this.panda **turnToFace** *target:* ???)
(this.panda **orientTo** *target:* ???)
(this.panda **orientToUpright**)
(this.panda **pointAt** *target:* ???)

position & orientation

(this.panda **moveAndOrientTo** *target:* ???)

size

(this.panda **setWidth** *width:* ???)
(this.panda **setHeight** *height:* ???)
(this.panda **setDepth** *depth:* ???)
(this.panda **resize** *factor:* ???)
(this.panda **resizeWidth** *factor:* ???)
(this.panda **resizeHeight** *factor:* ???)
(this.panda **resizeDepth** *factor:* ???)

appearance

(this.panda **setPaint** *paint:* ???)
(this.panda **setOpacity** *opacity:* ???)

vehicle

(this.panda **setVehicle** *vehicle:* ???)

audio

(this.panda **playAudio** *audioSource:* ???)

timing

(this.panda **delay** *duration:* ???)

other

(this.panda **straightenOutJoints**)

this.panda

one shots ▼

▼ **this.panda's Properties**

(Panda) **panda** ⇐ (new (Panda))

Paint = ☐ WHITE
Opacity = ▤ 1.0
Vehicle = ☐ this
Position = (x: -1.00 , y: 1.73 , z: -0.10)

Size =   Width: 0.75
        Height: 1.15   [Reset]
        Depth: 0.53

Show Joints: ☐

Given below are the panda functions.

this.panda

Procedures | **Functions**

group by category

Panda 's Editable Functions (3)
- edit — this.panda getLeftEar
- edit — this.panda getRightEar
- edit — this.panda creatureAbove friend1: ??? , friend2:

Biped 's Editable Functions (0)

appearance
- this.panda getPaint
- this.panda getOpacity

size
- this.panda getWidth
- this.panda getHeight
- this.panda getDepth

prompt user
- this.panda getBooleanFromUser message: ???
- this.panda getStringFromUser message: ???
- this.panda getDoubleFromUser message: ???
- this.panda getIntegerFromUser message: ???

other
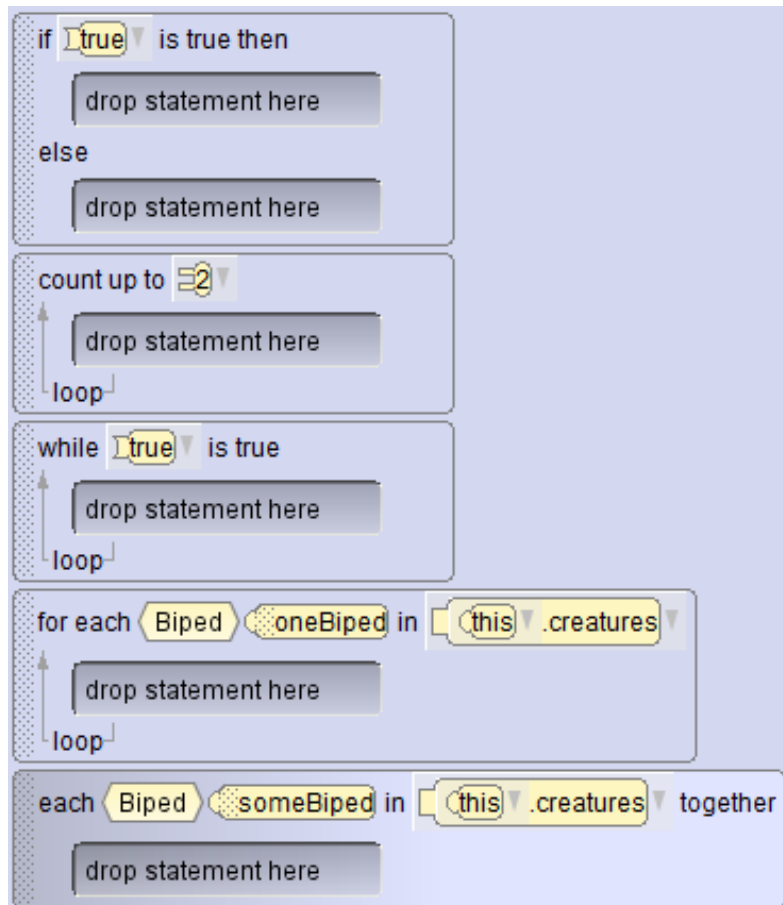- this.panda getDistanceAbove other: ???
- this.panda getDistanceBehind other: ???
- this.panda getDistanceBelow other: ???
- this.panda getDistanceInFrontOf other: ???
- this.panda getDistanceTo other: ???
- this.panda getDistanceToTheLeftOf other: ???
- this.panda getDistanceToTheRightOf other: ???
- this.panda getVantagePoint entity: ???
- this.panda getVehicle
- this.panda isAbove other: ???
- this.panda isBehind other: ???
- this.panda isBelow other: ???
- this.panda isCollidingWith other: ???
- this.panda isFacing other: ???
- this.panda isInFrontOf other: ???
- this.panda isToTheLeftOf other: ???
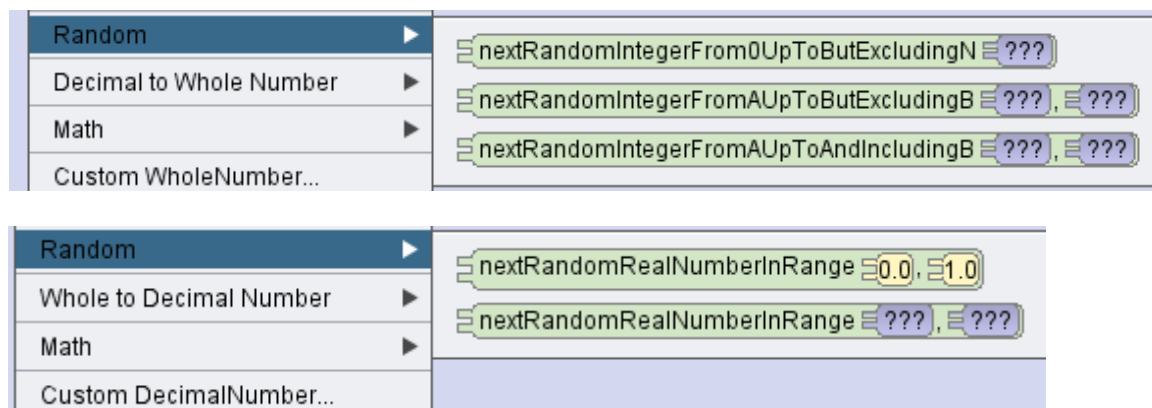- this.panda isToTheRightOf other: ???
- this.panda toString

joints
- this.panda getHead
- this.panda getLeftAnkle
- this.panda getLeftClavicle
- this.panda getLeftElbow
- this.panda getLeftEye
- this.panda getLeftEyelid
- this.panda getLeftFoot
- this.panda getLeftHand
- this.panda getLeftHip
- this.panda getLeftIndexFinger
- this.panda getLeftIndexFingerKnuckle
- this.panda getLeftKnee
- this.panda getLeftMiddleFinger
- this.panda getLeftMiddleFingerKnuckle
- this.panda getLeftPinkyFinger
- this.panda getLeftPinkyFingerKnuckle
- this.panda getLeftShoulder
- this.panda getLeftThumb
- this.panda getLeftThumbKnuckle
- this.panda getLeftWrist
- this.panda getMouth
- this.panda getNeck
- this.panda getPelvis
- this.panda getRightAnkle
- this.panda getRightClavicle
- this.panda getRightElbow
- this.panda getRightEye
- this.panda getRightEyelid
- this.panda getRightFoot
- this.panda getRightHand
- this.panda getRightHip
- this.panda getRightIndexFinger
- this.panda getRightIndexFingerKnuckle
- this.panda getRightKnee
- this.panda getRightMiddleFinger
- this.panda getRightMiddleFingerKnuckle
- this.panda getRightPinkyFinger
- this.panda getRightPinkyFingerKnuckle
- this.panda getRightShoulder
- this.panda getRightThumb
- this.panda getRightThumbKnuckle
- this.panda getRightWrist
- this.panda getSpineBase
- this.panda getSpineMiddle
- this.panda getSpineUpper

If, loops, and creating an array element.

unmanaged

▼ (Biped[]) **creatures** ⟵ [new Biped[] { (this.bunny), (this.bunny2) }]

⊕ Add Scene Property...

if I[true] is true then
    drop statement here
else
    drop statement here

count up to 2
    drop statement here
loop

while I[true] is true
    drop statement here
loop

for each (Biped) (oneBiped) in [(this) .creatures]
    drop statement here
loop

each (Biped) (someBiped) in [(this) .creatures] together
    drop statement here

Random Integer and Decimal Numbers

Random	▶	nextRandomIntegerFrom0UpToButExcludingN ???
Decimal to Whole Number	▶	nextRandomIntegerFromAUpToButExcludingB ???, ???
Math	▶	nextRandomIntegerFromAUpToAndIncludingB ???, ???
Custom WholeNumber...		

Random	▶	nextRandomRealNumberInRange 0.0, 1.0
Whole to Decimal Number	▶	nextRandomRealNumberInRange ???, ???
Math	▶	
Custom DecimalNumber...		

Sample of the Gallery Class