Fall 2019-2020

CMPE 100: Introduction to Computing

Lecture Exercises01

1. Write an expression to find the area of sphere (area= 4 * pi * r^2)

2. Write an expression to find the volume of sphere (volume= 4/3 * pi * r^3)

3. What are the output of the following expressions:

(define MYREDBALL (circle 10 "solid" "red"))

(define MYBLUEBALL (circle 20 "solid" "blue"))

(number? (image-width MYREDBALL))

(* (image-width MYREDBALL) (image-height MYREDBALL))

(overlay MYREDBALL MYBLUEBALL)

(overlay/align "left" "top" MYREDBALL MYBLUEBALL)

(overlay/align "left" "top" MYBLUEBALL MYREDBALL)

(image-width (overlay MYREDBALL MYBLUEBALL))

(string-length "cmpe100")

(number->string (string-length "cmpe100"))

(define MYSTR "hello class")

(string-ith MYSTR (- (string-length "cmpe100") 1))

(substring MYSTR 6 (string-length MYSTR))

(and (number? (string-length MYSTR)) (= (image-width MYREDBALL) (image-height MYRED-BALL)))

(or (number? (string-append MYSTR MYSTR)) (and (> 2 3) (= 2 2)))

(define MYSCN (empty-scene 200 200))

(string? MYSCN)

(and (or (not (number? MYREDBALL))(> (string- >number "10") 5)) (= (string-length MYSTR) 10))