1. Chapter 7, Discussion #3, pg. 237.

Show the output that would result from each of the following possible

inputs:

a) 3, 4, 5

Trees

Larch

Done

b) 3, 3, 3

Trees

Chestnut

Done

c) 5, 4, 3

Spam Please!

Done

d) 3, 5, 2

Cheese Shoppe

Cheddar

Done

e) 5, 4, 7

It’s a late parrot!

Done

f) 3, 3, 2

Cheese Shoppe

Cheddar

Done

1. Chapter 7, Programming Exercise #6, pg. 239. Submit your source code as your answer.

A certain CS professor gives five-point quizzes that are graded on the scale

5-A, 4-B, 3-C, 2-D, 1-F, 0-F. Write a program that accepts a quiz score as an

input and uses a decision structure to calculate the corresponding grade.

# this program gives a letter grade from a score

# using a decision tree

def getGrade(score):

if score >= 3 :

if score == 4:

return "B"

elif score > 4:

return "A"

else:

return "C"

else:

if score == 2:

return "D"

else:

return "F"

def main():

score = int(input("Enter your quiz score: "))

print("Your grade is:",getGrade(score))

if \_\_name\_\_ == "\_\_main\_\_":

main()

1. Chapter 7, Programming Exercise #8, pg. 239. Submit your source code as your answer.

A person is eligible to be a US senator if they are at least 30 years old

and have been a US citizen for at least 9 years. To be a US representative

these numbers are 25 and 7, respectively. Write a program that accepts a

person's age and years of citizenship as input and outputs their eligibility

for the Senate and House.

#this program takes input

#from user and determines eligibity

# for the Senate and House

def main():

age = int(input("Enter your age: "))

citizenship = int(input("How long have you been a US citizen? "))

if age >= 30 and citizenship >= 9:

print("You are eligible for both the Senate and House")

elif age >=25 and citizenship >= 7:

print("You are eligible for the House")

else:

print("You aren't eligible for the House or Senate")

if \_\_name\_\_ == "\_\_main\_\_":

main()

1. Chapter 7, Programming Exercise #14, pg. 240. Submit your source code as your answer.

7. Circle Intersection.

Write a program that computes the intersection of a circle with a horizontal

line and displays the information textually and graphically.

Input: Radius of the circle and they-intercept of the line.

Output: Draw a circle centered at (0, 0) with the given radius in a window

with coordinates running from -10,-10 to 10,10.

Draw a horizontal line across the window with the given y-intercept.

Draw the two points of intersection in red.

Print out the x values of the points of intersection.

Formula: x = ±sqrt(r\*\*2 – y \*\* 2)

1. Briefly explain how Python's try-catch structure makes programs more robust.