QUESTION 2:

A dartboard of radius 10 and the wall it is hanging on are represented using the two

dimensional coordinate system, with the board’s center at coordinate (0; 0). Variables x

and y store the x- and y-coordinate of a dart hit. Write an expression using variables x

and y that evaluates to True if the dart hits (is within) the dartboard, and evaluate the

expression for these dart coordinates:

(a) (0; 0)

(b) (10; 10)

(c) (6; 6)

(d) (7; 8)

ANSWER

from math import\*

r=10

for i in range(4):

x0=int(input("enter initial x coordinate"))

y0=int(input("enter initial y coordinate"))

x=int(input("enter final x coordinate"))

y=int(input("enter final y coordinate"))

dist=sqrt(((x\*x0)\*\*2)+((y-y0)\*\*2))

if dist<=r:

print("hit")

else:print("miss")