**Your Name:** Cole Bardin **Section:** 62

*First* *Last*

**Spring 2022**

As a convenience, this **answer template** is provided if you wish to easily submit your work. Be sure to save it as a PDF before submitting online!

**Questions 1-2: Paste your yellow Pacman image here. Must not show the dots.**

Graphical user interface

Description automatically generated

**Question 3: Paste an image of your yellow Pacman with black eye here.**

Graphical user interface

Description automatically generated

**Questions 4-5: Anonymous functions**

**Question 4:** After defining the anonymous function translate(dx,dy) as above, find the result of:

>> translate(3,5) \* [5; 8; 1]

Answer: [8; 13; 1]

**Question 5:** Show your inline code for the anonymous function rotate(d).

**Paste code here:**

rotate = @(d) [cosd(d), -sind(d), 0; sind(d), cosd(d), 0; 0,0,1];

**Calculate both vectors and paste in the result. Does v1 = v2?**

v1 = rotate(30) \* rotate(60) \* [7;24;1]

v2 = rotate(90) \* [7;24;1]

Answer: Yes:

v1 = [-24; 7; 1]

v2 = [-24; 7; 1]

**Question 6: Paste an image of loop one for the maze here. (No dots!)**

A picture containing graphical user interface

Description automatically generated

**Question 7:** Paste an image of your **Four Loop** Maze here. Must be different than my two samples.

A screenshot of a computer

Description automatically generated with medium confidence

**Question 8:** Paste in your image showing the four-looped maze, the large black jewel, PACMAN, the 24 bonus jewels and the 16 turning points. You **must** use a different color pattern for the maze than mine.

**Graphical user interface, application

Description automatically generated**

**Question 9: Paste your code for crossing the void here.**

% Pacman earns 100 points on each crossing of the voids

if ismember(pacman\_center', voids', 'rows')

**% Add code here to handle crossing the void**

% 1. Increase the score by 100

score = score + 100;

% 2. Update the title message and display it in the title in magenta

title\_message = strcat("PACMAN SCORE: ", int2str(score) );

title(title\_message, 'Color', 'magenta')

% 3. Using fprintf, display the requested message in the command window.

fprintf("Reward for crossing the void: +100 points\n");

% 4. Play music1 using the sound command.

sound(music1, Fs1);

pause(0.4) % extra time delay when a void is crossed

end

**Question 10: What is the final score?**

Pacman's final score after gobbling all the crystals, crossing the voids and then doubling his/her total score upon winning the large **black** crystal is:

Final Score = **2020**



**That's it! Hope you enjoyed the game!**

**Ready to Submit?**

Be sure all ten questions are answered. When your lab is complete, be sure to submit three files:

1. Your **completed Answer Template** as a PDF file
2. A copy of your **MATLAB Ordinary m-file**
3. A **PDF** copy of your **MATLAB Ordinary m-file** (Save-Export to PDF…)

The due date is the day after your lab section by **11:59pm** to receive full credit. You have one more day, to submit the lab (but with a small penalty), and then the window closes for good and your grade will be zero.