



PYGAME MASTERY WORKSHEET

Module 3 of 20 • Level ★☆☆ • Time: 30 min

SCORE

___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Use RGB color tuples correctly
- ✓ Draw lines, circles, rects, ellipses and polygons
- ✓ Control filled vs outline shapes with width
- ✓ Explain the fill/draw/flip frame order

QUICK RECAP

Pygame draws with plain RGB tuples and a handful of pygame.draw functions — lines, circles, rectangles, ellipses, polygons and arcs — each following the same width=0-means-filled convention, and nothing is visible until display.flip() runs.

Section A • Concept Check • BEGINNER $4 \times 1 = 4$

- 1 What does width=0 mean in a pygame.draw call?
 - ☐ A. Invisible shape
 - ☐ B. Solid filled shape
 - ☐ C. A 0-pixel line
 - ☐ D. An error
- 2 What must run before any drawing each frame?
 - ☐ A. pygame.quit()
 - ☐ B. screen.fill(color)
 - ☐ C. pygame.draw.arc()
 - ☐ D. Nothing is required
- 3 What shape does pygame.draw.ellipse make from a square rect?
 - ☐ A. A square
 - ☐ B. A perfect circle
 - ☐ C. A triangle
 - ☐ D. An error
- 4 What units does pygame.draw.arc use for its angles?
 - ☐ A. Degrees
 - ☐ B. Radians
 - ☐ C. Percent
 - ☐ D. Pixels

Section B • Problem Solving • INTERMEDIATE $2 + 3 \times 3 = 11$

- 5 An RGB color tuple has _____ numbers, each from 0–255.
- 6 pygame.draw.polygon takes a list of _____ that it connects in order.
- 7 Write the pygame.draw call to draw a filled red (220,20,60) circle at (400,300) with radius 40.

- 8 What's the difference between pygame.draw.rect(...,0) and pygame.draw.rect(...,3)?

- 9 Name the function that finally makes your drawings appear in the window.

Section C • Challenge • CHALLENGE 5

- 10 If you forget screen.fill() every frame, what visual artifact appears on screen as sprites move, and why does it happen?

Reflection — the most useful thing I learned: _____

A ___/4

B ___/11

C ___/5

Total ___/20

Teacher's Signature

Parent's Signature

⌘ ANSWER KEY – FOLD OR CUT BEFORE HANDING OUT

1-B 2-B 3-B 4-B | 5 three 6 points (x,y) 7 = `pygame.draw.circle(screen,(220,20,60), (400,300),40)` 8 = `width=0` fills the rect solid; `width=3` draws only a 3-pixel outline 9 = `pygame.display.flip()` (or `pygame.display.update()`) | 10 = old frames "smear" across the screen because nothing erases the previous drawing before the new one is drawn on top of it

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