

## Objectives for this class meeting

- Conduct vote on basic style of game for class project
- Follow-up to exercises on 2D Graphics
- Introduction to exercises on widgets

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# Voting on the game

- you will each receive a ballot by email
- · submit the ballot as follows

submit 1720 Vote ballot.txt

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## Basic 2D Graphics

- At this point, you are in a position to:
  - implement basic functionality (write code, lab exercises)
  - answer a number of conceptual questions
- Reference material:
  - The Lect04 lecture nores
  - The Java Tutorials, Trail: 2D Graphics
  - Various URLs from lecture notes

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Q: What is the **role of the window manager** when an app wishes to draw graphics?

Answer:

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# 2D Graphics: Conceptual Questions

Q: How has **abstraction** been applied to the task of drawing graphics in Java?

Answer:



Q: How has **layered abstraction** been applied to the task of drawing graphics in Java?

Answer:

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### 2D Graphics: Conceptual Questions

Q: What is **encapsulated** in the Graphics2D object?

Q: What is meant by the *state* of the Graphics2D object?

Answer:



Q: What does the class Toolkit encapsulate (in general terms) and how can it be useful to me?

Answer:

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# 2D Graphics: Conceptual Questions

Q: What is the **Shape** hierarchy? What does it mean for us (clients)?

Answer:



Q: What is the **Paint** hierarchy? What does it mean for us (clients)?

Answer:

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#### To Do:

 widget exercise \*BEFORE\* class on Thursday (download from course webpage)

