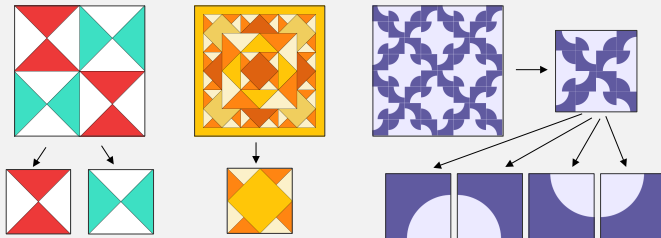


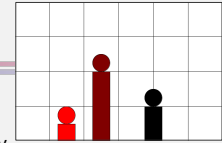
Lab 5

- decomposition into functions
 - have (only) one drawing function per thing, with parameters for variations in values
 - include size and color if those vary – it's not always only position!
 - for #1-3, break things down as directed in the worksheet and lab handout



Lab 5

- drawing function questions
 - “what differs?” – be specific (e.g. x rather than just “position”), don’t include more than necessary
 - “how is it drawn?” – label the “what differs?” and what you need to draw the shapes
 - “specific values?” – for the “what differs?” elements in the whole picture



what differs from one copy to the next?	how is it drawn?	what are the specific values for the “what differs” things?
position (x)	(x-25,400-h-50) (x-25,400-h)	150 250 400
height of rectangle	color (r,0,0) for both shapes	50 200 100
color (red)	(x,400) 50	255 128 0

to draw ellipses and rects, need the position (center or corner), width, height
“what differs?” things are labeled with names, other things are labeled with specific values derived from the whole picture

Lab 5

- comments for functions

```
// draw a tree
// (x,y) is the position of the bottom center of the tree trunk

void drawTree ( int x, int y ) {
    ...
}
```

- describe what the function draws
- describe what the parameters are for
 - especially important for position – what specific point is being referred to as (x,y)?

Lab 5 – Revise and Resubmit

Deadlines –

- lab 5 resubmit is due Nov 21
- redo presentation meeting must be scheduled by Nov 21 and occur by Nov 25 (before Thanksgiving break)
 - can be done during your regular presentation meeting timeslot Nov 24-25
 - can be done during office hours, but still must be scheduled (no drop-ins for presentation meetings)
- earlier handins are encouraged!

Lab 5 – Revise and Resubmit

- you may revise and resubmit lab exercises once each
 - you can resubmit any or all of the exercises *as long as you handed in something for that exercise by the original deadline*
 - four extension tokens allow resubmit without an initial handin
 - one token covers all of the non-presentation exercises in one lab
 - one token covers the presentation exercise in one lab
 - one token covers the final project
 - extra credit is not eligible for resubmit
- you are encouraged to come to office hours to go over things you are planning to resubmit
- to get credit for a resubmit –
 - name resubmits with the form *name_resub*
 - i.e. lab5a_resub, lab5b_resub, lab5c_resub, lab5d_resub
 - do not overwrite/replace your original handin!
 - also hand in the worksheet
 - for presentation exercises and presentation outcomes, a redo presentation meeting must also be scheduled

17

Lab 5

- written feedback is on the papers handed back
 - sketches (code)
 - worksheet, presentation meeting exercise – things circled are missing or incorrect
- grades and outcomes posted on Canvas
 - Grades → Assignments tab to see “meets specifications” scores
 - score for the lab is based on all lab exercises
 - there are minimum thresholds for labs (average over all labs) and the project for C-/B-/A-final grades
 - Grades → Learning Mastery tab to see where you stand on learning outcomes
 - “presentation” outcomes are assessed based on the presentation meeting and presentation exercise (#4)
 - proficiency in core concepts and programming elements requires –
 - at least one “proficient” or better in that outcome for a presentation, *and*
 - at least one “proficient” or better in that outcome on an exam
 - there are minimum proficiency thresholds for C-/B-/A- final grades
 - “practice” outcomes are those reflected in a lab or project but not covered by a presentation
 - assessed based on the lab worksheet and all exercises (#1-4)
 - weighted average favoring most recent assignments
 - does not count directly towards your final grade but gives you an idea of where you stand on that topic

18

Lab 5 – Revise and Resubmit

Why (and what to) revise and resubmit?

- to learn and to indirectly improve your grade
 - practice is important for mastery and builds a stronger foundation for later material
 - it is important to practice solving the whole problem and not just most of a problem – practice success!
- to directly improve your grade
 - to achieve minimum thresholds for “meets specifications” scores
 - revise and resubmit lab exercises (#1-4) – address the written comments on your code
 - to achieve proficiency for presentation outcomes
 - revise and resubmit the presentation exercise (#4) – address the written comments on your code
 - complete a redo presentation meeting