

# *Java By Abstraction - Companion Notes*

## **Topic 4 – Using Objects**

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CSE 1720, Winter 2010, Version 1.0, Prepared by: M. Baljko

*see first Companion Notes for Legend JD, PT, Ex, etc*

### Section 4.1

- read – this material provides conceptual background to object creation

### Section 4.2; JD 4.1; PT 4.1-4.2; IMD 4.1-4.2; Ex 4.1-4.3

- section 4.2.1 provides another version of what is described in “Part B” of the alternative version of “Meet the Managers”
- IMD 4.1 refers to static features; refresh your memory if needed about what these are (e.g., the features used in sec 2.1.2 re: the Modular Paradigm are all static)
- PT 4.2 is interesting if you are coming from a C/C++ background (which allows such arithmetic operations on references)
- Ex 4.3: type in the code yourself and run it; this will give you practice with using the services of a different class (Fraction, in this case)
- all the sub-sections of 4.2 are important; 4.2.4 especially is important; I foreshadowed this material in the lecture on Thursday, Jan 14<sup>th</sup>.

### Section 4.3; IMD 4.3; Ex 4.4-4.6

- notice that the methods described in 4.3.1 are not used in Rectangle3. The class Rectangle3 really should be designed to provide accessors and mutators for width and height (rather than allowing the client to manipulate them directly)
- the material about static and final can be tricky; be sure to take your time with 4.3.3 and 4.3.4
- IMD 4.3 makes a good point