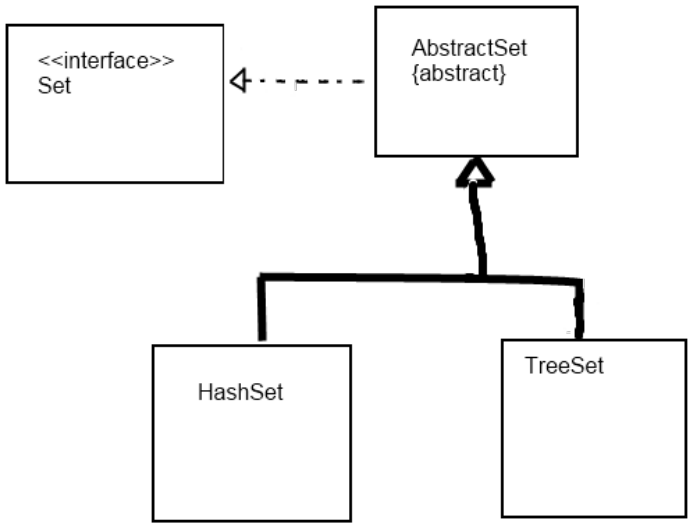
Michael Rubin - mnr2114 - hw #4

6.8) Some examples of final classes in java (classes that can't be extended) are (immutable) classes like String, System, and Math.
Some examples of final methods (methods that can not be overridden in subclasses) are Calendar's set() method, and Class's getClass() method, in addition to methods of final classes like the ones mentioned above.

6.10)
HashSet and TreeSet extend AbstractSet, which itself implements Set (and Collection and Iterable, depending on the version of Java) I did not draw them in the diagram below but they would look just as the Set interface does with the tail of their arrows at AbstractSet.



6.12) a) subclasses of Number class are: AtomicInteger, AtomicLong, BigDecimal, BigInteger, Byte, Double, Float, Integer, Long, Short
b) They are not abstract since they just return (byte) intValue and (short) intValue, where intValue and the rest of the abstract methods actually have to be implemented. The non-abstract ones are just defined in terms of these.

7.6)
(a) x.getClass() == Rectangle.class
(b) x instanceof JPanel && x.getClass() != JPanel.class
(c) x instanceof Cloneable

Programming section: class diagram: