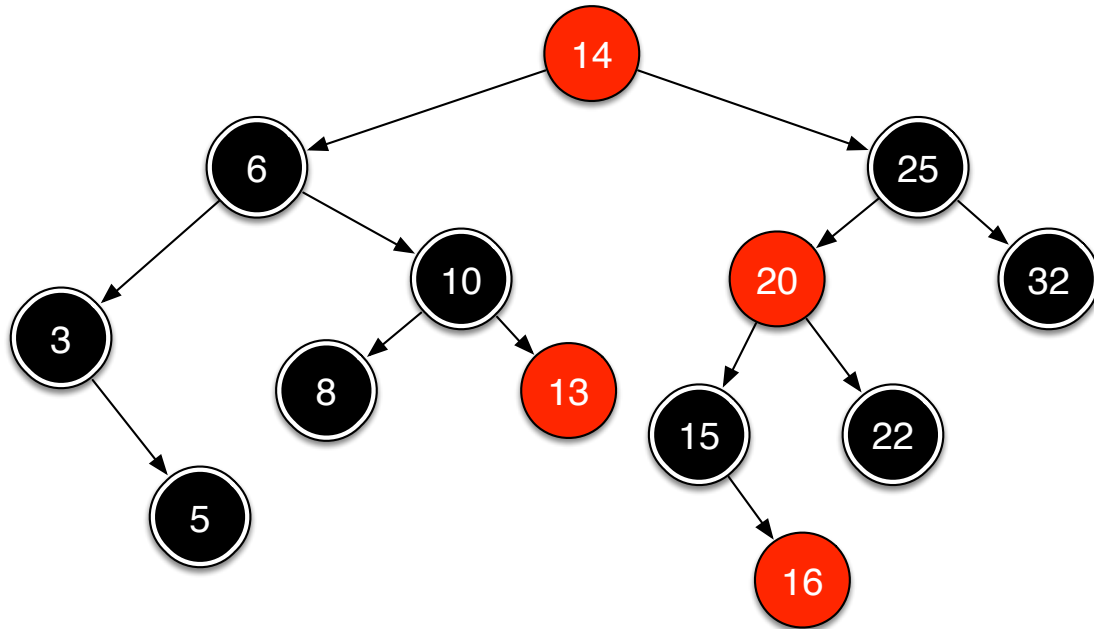


## Red-Black Trees – Insert #1



1. Is this a valid Red-Black tree? Why or why not?
2. Adjust node colors to make the tree a valid Red-Black Tree. (Hint: Consider nodes 14, 8, and 5)
3. Perform the following operations on the Red-Black tree from part 2 – indicate black nodes with double lines and red nodes with single lines:
  - Insert(23)
  - Insert(12)