

**AP CS A**  
**Boolean Expression Evaluation Review**

Evaluate each expression to determine whether it is true, false or invalid. If the expression is valid, determine if the evaluation of the expression can be short-circuited.

Given the following variable declaration and initialization:  
**int favNum= 25;**

1. favNum > 5 && < 20
2. 10 - 4 == 6 || 4 == 4 || !(favNum < 10)
3. !30 == favNum || 10 < 12
4. false && true && true
5. !false && false

**Use DeMorgan's Laws to "distribute" the not symbols**

**You are given the following variable declaration. Assume that the variable has been initialized appropriately.**

**int myNum = <valid int value>;**

6. !(myNum < 10) || myNum == 20
7. !(myNum != 9 && !(myNum >= 7))
8. 5 == myNum || !(myNum > 5)

**Evaluate each expression to determine whether it is true, false or invalid.**

9. 3 != 3 || !(3 > 6) && 5 == 7
10. true || true && false