**Testing the Edges Activity –
Test Problem Scenarios Handout**

**Problem A**

***![C:\Users\yowell\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\Y9LJXS7V\MC900370242[1].wmf]()****Scenario:* Write a function called canCastSpell, which determines whether a character in an adventure game is capable of casting a magic spell.

This function takes in three parameters:

* A String indicating the class of the character trying to cast the spell; this string must be one of “White mage,” “Red mage,” “Black mage,” or “Fighter.” (Note: a “mage” is a magician or wizard; rhymes with cage.)
* A String indicating the kind of spell to be cast; this string must be either “Cure” or “Fire.”
* An integer that indicates the spell level (from 1 to 5).

The function should return true if the given character can cast the given spell, and false otherwise. Each class has certain restrictions on the spells it can cast:

* White mages can cast Cure spells, of any level.
* Black mages can cast Fire spells, of any level.
* Red mages can cast both Cure and Fire spells, but only at levels 1 through 3.
* Fighters cannot cast any spells.

**Problem B**

*Scenario:* Write a function called canUseWeapon, which determines whether a character in an adventure game can wield a given weapon. This function takes in three parameters:

* A String indicating the class of the character who will wield the weapon; this string must be one of “White mage,” “Red mage,” “Black mage,” or “Fighter.”
* A String indicating the weapon to be wielded; this string must be one of “Staff” or “Sword.”
* An integer that indicates the weapon’s weight (from 1 to 20).

The function should return true if the given character can use the given weapon, and false otherwise. Each class has certain weapon restrictions:

* White mages can only use staves (of any weight).
* Black mages can only use swords that weigh 10 or less units.
* Red mages can use any weapon that weighs 15 or less.
* Fighters can use any weapon, regardless of type or weight.