1) if there are defects post release the new version has to be developed, tested and rolled out again meaning that defects post release are much more costly than defects found earlier.

2)

for:

developers know the code well so they can write precise tests you dont need to spend money on testers bugs are found earlier developers can fix bugs immediately (no communication needed between developers and testers)

against:

developers are tunnel visioned on the code their written code, thus not considering certain bugs. Developers understand the program better than the average user, thus not finding some bugs developers need to have deep knowledge about both coding and testing.

3)

class 1: website did not change(strings are equal)

class 2: website html changed but text did not change

class 3: website html and text changed but length the same.

Class 4: website html and thex changed and length different.

each of these classes for each of the comparison strategies.

4) when a bug is fixed also test whether other functionality that worked previously still works. When code is changed or added test whether w

5)

black box: dont know source code, just test application

white box: know the code, build tests based on code analysis