

Post-Activity Quiz **Answer Key**

Complete the following essay questions.

1. What are some examples of software being written that have no way to test all possible scenarios to verify that the programs work correctly?

Many different types of algorithms are not fully tested because every scenario cannot be pre-tested. Some examples include: Driverless vehicles, speech recognition software, mapping software.

2. What are the implications for using software that by definition cannot be tested for all cases?

Since software cannot be fully tested, the possibility exists that potentially important tasks like driving a car might fall apart or fail to perform as intended when those programs experience unforeseen circumstances.

3. Might some cases exist in which software could be considered fully tested even though the software has not been tested against some situations and circumstances?

OCR and other commercially available software are reliable though not perfect. Many examples exist in which even with full scale testing, some unforeseen circumstances have not been tested. This amounts to an “acceptable error” rate.