Quizizz

NAME : _____

CLASS : _____

DATE : _____

z3 Workshop

9 Questions

1. Z3 is an SMT Solver.SMT stands for:

☐ a) Satisfiability Modulo Theories   ☐ b) Satisfiable Modul Theory

☐ c) Satisfiability Method Theories

2. Z3 functions with:

☐ a) Python   ☐ b) Several different languages

☐ c) Python and C++   ☐ d) Java and C++

3. What would be the first step in a Z3 script?

☐ a) Create solver   ☐ b) Add constraints

☐ c) Declare variables

4.
```
s.add(Or(Tie, Shirt),
      Or(Not(Tie), Shirt),
      Or(Not(Tie), Not(Shirt)))
```
What is done here?

☐ a) Variables are declared   ☐ b) Constraints are added to the solver

☐ c) The solver object is created   ☐ d) Satisfiability is checked

5. How can one officially interact with Z3?

☐ a) Over SMTLIB2 scripts   ☐ b) Over a GUI

☐ c) Pipe to Z3 over API calls from high-level   ☐ d) Command line
    programming language

6. How to create a custom datatype?

- [ ] a) Datatype.name("name")
- [ ] b) new Datatype("name")
- [ ] c) Datatype("name")
- [ ] d) name = new Datatype()

7. Which bit-wise operations are allowed for bit-vectors?

- [ ] a) AND
- [ ] b) OR
- [ ] c) NOT
- [ ] d) XOR

8. Which is NOT part of a typical structure of a Z3 script?

- [ ] a) Checking for satisfiability
- [ ] b) Creating solver object
- [ ] c) Calculating
- [ ] d) Declaring variables

9. print(s.check())

- [ ] a) is part of a python script
- [ ] b) prints the check for satisfiability of the solver
- [ ] c) checks for the satisfiability of a solver
- [ ] d) is part of a SMTLIB2 script

Answer Key

1.	a	4.	b	7.	a,b,c,d
2.	b	5.	a,c	8.	c
3.	c	6.	c	9.	a,b