

Green Mathematics for Machine Learning  
Bayesian Creatures  
Lesson 1: Sets, Worksheet 1

1)  $S = \{a, b, c, d, e, f, b, g\}$

**What is wrong with this set?**

---

2) Is  $\{a, b, c\}$  the same set as  $\{b, a, c\}$ ?

**YES      NO**

3) If B is the subset of A, then A is the

\_\_\_\_\_ of B.

4) If  $A = \{1, 2, 4, 8, 16, 32, 64\}$  and  $B = \{1, 2, 5, 8\}$ , is B a subset of A?

**YES      NO**

5) Sets cannot have other sets as members.

**TRUE      FALSE**

6)  $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

**Write the subset B such that B contains all the elements of A that are even numbers.**

---

7) If  $A = \{\{a, b\}, c, \{d, e\}, \{f, g, h\}\}$ , what is  $|A|$ ?

---

8) If  $A = \{2, 3, 5, 7, 11\}$  and the subset  $B = \{3, 7, 11\}$ , what is the ratio of  $|B|$  to  $|A|$ ?

---

9) Which of these statements says “R is a subset of S”?

$$R \subset S \quad S \subset R$$

10) Is  $\{a, b, \{c\}, d\}$  the same as  $\{\{a\}, b, \{c\}, d\}$ ?

YES      NO