SIMUW Theory of Equations: Counting different sorts of numbers

Classify the following sets as countable or uncountable (with proof):

1. $\mathbb{Z}$
2. $\mathbb{Q}$
3. $\mathbb{Q}(\sqrt{2})$
4. $\mathbb{Z}^9 = \{(x_1, x_2, \ldots, x_9) : x_i \in \mathbb{Z} \text{ for all } i\}$
5. The set of all surds
6. The set of all algebraic numbers
7. The set of all transcendental numbers
8. The set of all computable numbers (where let's say "computable" means there is a computer program that outputs the number's decimal expansion)