

## New questions for EZQuiz 3

- Define right-linear (p89)
- Linz example 3.14 (p90)
- State the relationship between regular languages and regular grammars. Soln: Linz Theorem 3.6
- Linz §3.3 Exercise 4.
- State the closure properties of regular languages under elementary set operations  
Sln: Linz Thm 4.1 (p100)
- State the closure properties of regular languages under non-elementary set operations  
Sln: [This combines Thms 4.2, 4.3, 4.4]  
The family of regular languages is closed under reversal, homomorphisms, and right quotients.
- Linz §4.1 Exercises 7 and 14.
- Statement and proof of Thms 4.5, 4.6, 4.7 (p112)
  - e.g. "state and prove the theorem about determining equality of regular languages"
  - "is there an algorithm for determining whether a regular language is infinite? Justify your answer with a mathematical proof."
- Linz Example 4.6. i.e. "Prove that  $L = \{a^n b^n : n \geq 0\}$  is not regular."