*This is on material from Week 2, which is strings, languages, and alphabets.*

Which of the following are strings over the alphabet {a, b, c}? **abbab, ^, ab, a, abc**

Let A and B both be languages where A = {^} and B = {}. Are A and B the same language? **No**

Which of the following could be alphabets? **{a, e, i, o, u}, {}, ∅**

Which of the following could be languages? **∅, {rowan, is, awesome}, {a, e, i, o, u}, {a, be, sea}, {aBeSea}, {a, e, i, o, u}, {a, ^}**

Which of the following could be strings? **rowan, rowanIsAwesome, aeiou, aBeSea, ^**

Which of the following are languages over the alphabet {r, o, w, a, n}? **{row, row}, {rowann}, {rowrow}, {^}, {now}, ∅, {rowan}**

Which of the following are strings in the language {a*n* + 1b*k* | n and k are elements of the natural numbers}? **abb, abbb, aaa, ab, aab, aa, aabb, a, aaaa, aaab**

Solve the unknown language M in the equation {^, a, b} M = {c, ac, bc, aa, aaa, baa, b, ab, bb}. Now answer this question: Which of the following statements about M are true? **{aa} ⊆ M,**

**{b} ⊆ M, aa ∈ M, ∅ ∈ M b ∈ M, c ∈ M**

Suppose L = {aa, bb}. Which of the following statements are true about L\*? **aa is in L\*, there are exactly 2 strings of length 2 in L\*, bb is in L\***

Suppose L = {a, b} and M = {c}. Which of the following strings are in the language L\*M? **aac, abc, ac, c**