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Computer Science 331  
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Exercise A:

Here is the secret message:

The Magic Words are Squeamish Ossifrage

Press ENTER to quit

Exercise B:

C++ is primarily statically typed. This means that you must specify what type each variable is before run time, unless you use 'auto'.

Exercise C:

$xc^*d^+$   
2, 5, 7

Exercise D:

The language is the same number of 'a's on front as 'b's in back, 0 or more, with 0 or more even number of 'c' in the middle.

Exercise E:

1, 3, 4, 5

Exercise F:

$(a|b)^*a(a|b)^*$  or  $(a|b)^*ab^*$

Exercise G:

1.  $SS$
2.  $ab$
3.  $S \rightarrow SS \rightarrow SX \text{ or } XS \rightarrow XX \rightarrow abab$
4.  $S \rightarrow SS \mid ab$

Exercise H:

1.  $S \rightarrow aax$   
 $a \rightarrow aa$
2.  $S \rightarrow Cx$   
 $C \rightarrow aa \mid aC$
3. No. There is a path for the grammar that you have to take for each string