1. Why does one use two-point crossover in LGP?

	TRUE	FALSE
2. In LGP, regarding constants, one is stuck with only the predefined ones, which are stored in the constant registers.	☐	☐
3. In interactive evolutionary computation (IEC) one should try to present (on the screen) as many solution candidates (to the user) as possible.	☐	☐

1. Two-point crossover is used in order to achieve (the possibility of) length variation among the chromosomes. Typically, LGP is applied in situations in which the optimal size of the chromosomes is not known, *a priori*. Thus, it is crucial to allow length variation. Note that length variation *can* also be arranged with single-point crossover (if one selects different crossover points in the two chromosomes), but it is common in LGP to exchange a middle section (thus requiring two-point crossover). With two-point crossover one can better control the magnitude of the change in the new chromosomes than with single-point crossover: If the exchanged middle sections are not very long, the change in the chromosome will generally be smaller than with single-point crossover.

2. This is FALSE. An LGP chromosome can (and will, if needed) build temporary constants from the available parameters. Thus, for example, if the constants 1 and 2 are stored in two constant registers, the chromosome may contain an instruction that (temporarily) builds the constant 3 (e.g. $r_1 := c_1 + c_2 = 1+ 2 = 3$) etc. Provided that there are enough variable registers, the temporary constants can remain in one of the variable registers for some time (possibly until the end of the evaluation, even), and can thus (once formed) be available throughout the evaluation of the LGP chromosome.

3. This is also FALSE. A common problem in IEC is user fatigue, from having to assess the relative merits of many candidate solutions. Typically, one therefore only presents, say, 3x3 or 4x4 solution candidates (at a time) to the user.