Problem 6: Compute gcd's of numbers:
   (i) \( \text{gcd}(12345, 54321) \):
   \[
   \text{gcd}(12345, 54321); \quad 3 \tag{1}
   \]
   Thus, the gcd of 12345 and 54321 is 3.
   (ii) \( \text{gcd}(213141516171, 262524232221) \):
   \[
   \text{gcd}(213141516171, 262524232221); \quad 3 \tag{2}
   \]
   Thus, \( \text{gcd}(213141516171, 262524232221) = 3 \).

Problem 7: Constructing lists.
   (a) The list \( L \) of length 12 with \( k \)-th entry \( \text{gcd}(k^2, 24) \):
   \[
   L := [ \text{seq}(\text{gcd}(k^2, 24), k = 1 .. 12) ]; \quad L := [1, 4, 3, 8, 1, 12, 1, 8, 3, 4, 1, 24] \tag{3}
   \]
   The 10th element of \( L \) is:
   \[
   L[10]; \quad 4 \tag{4}
   \]
   (b) The list of lists \( LL \) of length 12 whose \( k \)-th entry is the ordered pair \((k, \text{gcd}(k^2, 12))\). (Note that an ordered pair is the same as a list of length 2.)
   \[
   LL := [ \text{seq}([k, \text{gcd}(k^2, 12)], k = 1 .. 12) ]; \quad LL := [[1, 1], [2, 4], [3, 3], [4, 4], [5, 1], [6, 12], [7, 1], [8, 4], [9, 3], [10, 4], [11, 1], [12, 12]] \tag{5}
   \]
   The element \( LL[9] \) is the 9th ordered pair, and \( LL[9,2] \) is the second element of this ordered pair:
   \[
   LL[9]; LL[9, 2]; \quad [9, 3] \tag{6}
   \]
   (c) A one-line function \( f(x) \) to compute \( x^2 - x + 1 \):
   \[
   f := x \rightarrow x^2 - x + 1; \quad f := x \rightarrow x^2 - x + 1 \tag{7}
   \]
   The value of \( f(x) \) at \( x = 20 \) is:
   \[
   f(20); \quad 381 \tag{8}
   \]