

Fibonacci Sequences

- 1) Write down the next two terms of the Fibonacci sequence that begins
 $1, 1, 2, 3, 5, 8, 13, \dots$

- 2) If the first three Fibonacci numbers are $x_1 = 1, x_2 = 1, x_3 = 2$,
what is the least value of n for which $x_n > 60$?

- 3) If the first three Fibonacci numbers are $x_1 = 1, x_2 = 1, x_3 = 2$,
what is the value of n for which $x_n + x_{n+1} = 89$?

- 4) If the first three Fibonacci numbers are $x_1 = 1, x_2 = 1, x_3 = 2$,
what is the value of n for which $x_n + x_{n+1} + x_{n+2} = 68$?

- 5) If the first three Fibonacci numbers are $x_1 = 1, x_2 = 1, x_3 = 2$,
what is the value of n for which $x_{n-1} + x_n = 144$?

- 6) If the first three Fibonacci numbers are $x_1 = 1, x_2 = 1, x_3 = 2$,
what is the least value of n for which $\frac{x_{n+1}}{x_n} = 1.619$ correct to three decimal places?