- For the first problem (1000!) try with 10!

  $10! = 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$

  $= 3628800$

  $\underbrace{}_{?}$

- For the Fort Boyard game, if k was set to 3, consider k = 1 and k = 2.