Supplement 1 to Ch 15
1-7-based finger exercises

In the following, we use the abbreviated notation

$$\underbrace{22222222222222}_{\text{sequence of 15 digits 2}} = 2^{\underline{15}} \quad (1)$$

****

$$71^{\underline{2n}} = (79^{\underline{n}}) * (8^{\underline{n-1}}9) \quad (2)$$

$$4*(17^{\underline{n}}) + 3 = 71^{\underline{n}} \quad (3)$$

$$\lim_{n\to\infty} \frac{71^{\underline{n}}}{17^{\underline{n}}} = 4 \quad (4)$$

$$\lim_{n\to\infty} \frac{10^{\underline{n}}}{17^{\underline{n}}} = \frac{9}{16} \quad (5)$$

$$\lim_{n\to\infty} \frac{17^{\underline{n}}}{1^{\underline{n}}7} = \frac{8}{5} \quad (6)$$

$$\lim_{n\to\infty} \frac{7^{\underline{n}}1}{71^{\underline{n}}} = \frac{7*5}{4*8} \quad (7)$$

Is it possible to generate in this way irrational and transcendent numbers?