左にどこまでも続く数

- $\frac{1}{2} = \cdots\cdots 0000000000000.5$
- $\frac{1}{3} = \cdots\cdots 6666666666667.$
- $\frac{2}{3} = \cdots\cdots 3333333333334.$
- $\frac{1}{4} = \cdots\cdots 0000000000000.25$
- $\frac{3}{4} = \cdots\cdots 0000000000000.75$
- $\frac{1}{5} = \cdots\cdots 0000000000000.2$
- $\frac{2}{5} = \cdots\cdots 0000000000000.4$
- $\frac{3}{5} = \cdots\cdots 0000000000000.6$
- $\frac{4}{5} = \cdots\cdots 0000000000000.8$
- $\frac{1}{6} = \cdots\cdots 3333333333333.5$
- $\frac{5}{6} = \cdots\cdots 6666666666667.5$
- $\frac{1}{7} = \cdots\cdots 2857142857143.$
- $\frac{2}{7} = \cdots\cdots 5714285714286.$
- $\frac{3}{7} = \cdots\cdots 8571428571429.$
- $\frac{4}{7} = \cdots\cdots 1428571428572.$
- $\frac{5}{7} = \cdots\cdots 4285714285715.$
- $\frac{6}{7} = \cdots\cdots 7142857142858.$
- $\frac{1}{9} = \cdots\cdots 8888888888889.$
- $\frac{2}{9} = \cdots\cdots 7777777777778.$
- $\frac{4}{9} = \cdots\cdots 5555555555556.$
- $\frac{5}{9} = \cdots\cdots 4444444444445.$
- $\frac{7}{9} = \cdots\cdots 2222222222223.$
- $\frac{8}{9} = \cdots\cdots 1111111111112.$

- $-1 = \cdots\cdots 999999999999.$
- $-2 = \cdots\cdots 999999999998.$
- $-3 = \cdots\cdots 999999999997.$

  $\vdots$
- $-10 = \cdots\cdots 999999999990.$

  $\vdots$

問題

以下の等式が成り立つことを確認せよ。

(1) $\frac{1}{3} \times 3 = 1$

(2) $\frac{2}{3} \times 3 = 2$

(3) $\frac{1}{3} \times 2 = \frac{2}{3}$

(4) $\frac{1}{3} + \frac{2}{3} = 1$

(5) $\frac{1}{7} \times 7 = 1$

(6) $\frac{6}{7} \times 7 = 6$

(7) $\frac{1}{7} \times 6 = \frac{6}{7}$

(8) $\frac{1}{7} + \frac{6}{7} = 1$

(9) $\frac{1}{3} + \frac{1}{6} = \frac{1}{2}$

(10) $\frac{1}{3} + \frac{1}{2} = \frac{5}{6}$

(11) $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$

(12) $\frac{1}{9} + 1 = \frac{1}{9} \times 10$

(13) $\frac{1}{7} + 1 = \frac{1}{7} \times 8$

(14) $\frac{3}{7} \times \frac{1}{3} = \frac{1}{7}$

(15) $(-1) \times 2 = (-1) + (-1) = -2$

(16) $(-1) \times \frac{2}{3} = (-2) \times \frac{1}{3}$