

◎ 循環小數

$$0.3333\cdots = 0.\dot{3} \quad \Leftrightarrow \frac{1}{3}$$

$$0.252525\cdots = 0.\dot{2}5$$

$$0.12312312\cdots = 0.\dot{1}2\dot{3}$$

$$0.3454545\cdots = 0.3\dot{4}\dot{5}$$

$$\begin{array}{r} 10x = 3.\dot{3}33\cdots \\ - x = 0.\dot{3}33\cdots \\ \hline \end{array}$$

$$9x = 3$$

$$x = \frac{3}{9} = \frac{1}{3}$$

$$\begin{array}{r} 100x = 25.2525\cdots \\ - x = 0.2525\cdots \\ \hline \end{array}$$

$$99x = 25$$

$$x = \frac{25}{99}$$

$$x = 0.3454545\cdots$$

$$\begin{array}{r} 1000x = 345.4545\cdots \\ - 10x = 3.4545\cdots \\ \hline \end{array}$$

$$990x = 342$$

$$3+9+2=9$$

$$x = \frac{342}{990} = \frac{114}{330} = \frac{38}{110} = \frac{19}{55}$$