无限循环小数化为分数

将 $0.\dot{3}$ 转化为分数

解：设 $a = 0.\dot{3}$，则：

$10a = 3.\dot{3} = 3 + 0.\dot{3} = 3 + a$，

$9a = 3$

$\therefore a = \dfrac{3}{9} = \dfrac{1}{3}$

将 $0.\dot{2}\dot{5}$ 转化为分数

解：设 $a = 0.\dot{2}\dot{5}$，则：

$$100a = 25.\dot{2}\dot{5} = 25 + a,$$

$$99a = 25$$

$$\therefore a = \frac{25}{99}$$

无限循环小数化为分数

将 $0.3\dot{2}\dot{5}$ 转化为分数

解：设 $a = 0.3\dot{2}\dot{5}$，则：

$$10a = 3 + 0.\dot{2}\dot{5} = 3 + \frac{25}{99}$$

$$10a = \frac{3 \times 99 + 25}{99} = \frac{322}{99}$$

$$\therefore a = \frac{322}{990} = \frac{161}{495}$$