

例：求  $0.\dot{1}\dot{1}+0.2\dot{1}+0.3\dot{1}+0.4\dot{1}+0.5\dot{1}+0.6\dot{1}+0.7\dot{1}+0.8\dot{1}+0.9\dot{1}$ 。

（华罗庚金杯少年数学邀请赛专用培训教程初中版）

解：  $0.\dot{1}\dot{1}+0.2\dot{1}+0.3\dot{1}+0.4\dot{1}+0.5\dot{1}+0.6\dot{1}+0.7\dot{1}+0.8\dot{1}+0.9\dot{1}$

$$= \frac{11}{99} + \frac{21}{99} + \frac{31}{99} + \frac{41}{99} + \frac{51}{99} + \frac{61}{99} + \frac{71}{99} + \frac{81}{99} + \frac{91}{99}$$

$$= \frac{1}{99} (11+21+31+41+51+61+71+81+91)$$

$$= \frac{1}{99} \times \frac{9 \times (11+91)}{2} = \frac{1}{99} \times \frac{9 \times 102}{2} = \frac{51}{11}$$