

$$\boxed{x = 0.(11)}$$

$$x = 0.(11) = \frac{1}{9}$$

$$\begin{aligned} 10^2 x &= 10^2 \cdot 0.(11) = 11.(1) = \\ &= 11 + 0.(11) = 11 + x \end{aligned}$$

$$100x = 11 + x \quad ; \quad 100x - x = 11 \quad ; \quad 99x = 11$$

$$99x = 11$$

$$x = \frac{11}{99} = \frac{11}{9 \cdot 11} = \frac{1}{9}$$

$$\boxed{x = 0.(12)}$$

$$x = 0.(12) = \frac{4}{33}$$

$$\begin{aligned} 10^2 x &= 10^2 \cdot 0.(12) = 12.(12) = \\ &= 12 + 0.(12) = 12 + x \end{aligned}$$

$$100x = 12 + x \quad ; \quad 100x - x = 12 \quad ; \quad 99x = 12$$

$$99x = 12$$

$$x = \frac{12}{99} = \frac{3 \cdot 4}{9 \cdot 11} = \frac{3 \cdot 4}{3 \cdot 3 \cdot 11} = \frac{4}{3 \cdot 11} = \frac{4}{33}$$

$$\boxed{x = 0.(13)}$$

$$x = 0.(13) = \frac{13}{99}$$

$$\begin{aligned} 10^2 x &= 10^2 \cdot 0.(13) = 13.(13) = \\ &= 13 + 0.(13) = 13 + x \end{aligned}$$

$$100x = 13 + x \quad ; \quad 100x - x = 13 \quad ; \quad 99x = 13$$

$$99x = 13$$

$$x = \frac{13}{99}$$

$$\Gamma \quad x = 0.(18)$$

$$x = 0.(18) = \frac{2}{11}$$

$$10^2 x = 10^2 \cdot 0.(18) = 18.(18) =$$

$$= 18 + 0.(18) = 18 + x$$

$$100x = 18 + x ; \quad 100x - x = 18 ; \quad 100x - x = 99x$$

$$99x = 18$$

$$x = \frac{18}{99} = \frac{2 \cdot 9}{9 \cdot 11} = \frac{2}{11}$$

$$\Gamma \quad x = 0.(19)$$

$$x = 0.(19) = \frac{19}{99}$$

$$10^2 x = 10^2 \cdot 0.(19) = 19.19 =$$

$$= 19 + 0.(19) = 19 + x$$

$$100x = 19 + x ; \quad 100x - x = 19 ; \quad 100x - x = 99x$$

$$99x = 19$$

$$x = \frac{19}{99}$$

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