

a

$$e-1 = 1 + \frac{1}{1 + \frac{1}{2 + \frac{1}{1 + \frac{1}{4 + \frac{1}{1 + \frac{1}{6 + \dots}}}}}}$$

f

$$\tan(1) = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{3 + \frac{1}{1 + \frac{1}{5 + \frac{1}{1 + \frac{1}{7 + \dots}}}}}}}}$$

b

$$\frac{1}{e-2} = 1 + \frac{1}{2 + \frac{2}{3 + \frac{4}{4 + \frac{5}{5 + \frac{6}{6 + \frac{7}{7 + \dots}}}}}}$$

g

$$\frac{1+\sqrt{5}}{2} = 1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \dots}}}}}}$$

c

$$\frac{\pi}{2} = 1 - \frac{1}{3 - \frac{1}{1 - \frac{1}{3 - \frac{1}{1 - \frac{1}{3 - \dots}}}}}}$$

h

$$\log(1+x) = \frac{x}{1 + \frac{1^2 x}{2 + \frac{1^2 x}{3 + \frac{2^2 x}{4 + \frac{2^2 x}{5 + \frac{3^2 x}{6 + \frac{3^2 x}{7 + \dots}}}}}}}}$$

d

$$\frac{4}{\pi} = 1 + \frac{1^2}{2 + \frac{5^2}{2 + \frac{7^2}{2 + \frac{9^2}{2 + \frac{11^2}{2 + \frac{13^2}{2 + \dots}}}}}}$$

i

$$\sqrt[3]{2} + 2 = \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \frac{1}{3 + \dots}}}}}}}}}}$$

e

$$\sin(x) = \frac{x}{1 + \frac{x^2}{(2 \cdot 3 - x^2) + \frac{2 \cdot 3x^2}{(4 \cdot 5 - x^2) + \frac{4 \cdot 5x^2}{(6 \cdot 7 - x^2) + \dots}}}}$$

Figure 1. A Gallery of Continued Fractions