! For an efficient use of these tables, first read `HowTo.pdf`.

T3.38B. Integrands involving rational functions of $(a+b\,x)$ and trigonometric functions on the interval $(-\infty,\infty)$.

1. $$\int_{-\infty}^{\infty} \frac{1-\cos ax}{x(x-b)}\,dx = \pi\frac{\sin ab}{b}, \quad a>0,\ b \text{ real},\ b\neq 0.$$

2. $$\int_{-\infty}^{\infty} \frac{(b^2+c^2+x^2)x\,\sin ax-(b^2-c^2-x^2)c\,\sinh ac}{[x^2+(b-c)^2][x^2+(b+c)^2](\cos ax+\cosh ac)}\,dx = \begin{cases} \pi, & c>b>0, \\ \dfrac{2\pi}{e^{ab}+1}, & b>c>0, \end{cases} \quad a>0.$$
