Line-element examples for grey samples ($0{,}2 \leq x \leq 5$)

F(x) is called the line-element function of ***f(x).***

The following relations are valid for $x = Y/Y_u = Y/18$:

$$\frac{d[F(x)]}{dx} = f(x) \qquad [1]$$

$$F(x) = \int \frac{f'(x)}{f(x)}\, dx \qquad [2]$$

Example for the normalized tristimulus value $x = Y/Y_u$:

$$\frac{d[a \ln(1+b\,x)]}{dx} = \frac{a\,b}{1+b\,x} \qquad [3]$$

$$a \ln(1+b\,x) = \int \frac{a\,b}{1+b\,x}\, dx \qquad [4]$$