The function $f(x) = (x-3)^2 + \frac{1}{2}$ has domain $\mathrm{D}_f : (-\infty, +\infty)$ and $\mathrm{R}_f : \left[\frac{1}{2}, \infty\right)$.

$$\lim_{x \to a^-} f(x)$$

$$\lim_{x \to a} \frac{f(x) - f(a)}{x - a} = f'(a)$$

$$\int \sin(x)\,dx = -\cos(x) + C$$

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$$\int_a^b$$

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$$\int_{2a}^{b^2} x^2\,dx = \left[\frac{x^3}{3}\right]_{2a}^{b^2} = \frac{b^6 - 8a^3}{3}$$

$$\sum_{n=1}^{\infty} ar^n = a + ar + ar^2 + \cdots + ar^n$$

$$\int_a^b f(x)\,dx = \lim_{x \to \infty} \sum_{k=1}^{n} f(x_k) \cdot \Delta x$$

$$\vec{v} = v_1\vec{i} + v_2 j = \langle \vec{v}_1, v_2 \rangle$$