Mathematical Typesetting

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$$M^{\perp} = \{f \in V' : f(m) = 0 \text{ for all } m \in M\}.$$

The function f is given by

$$f(x) = 2x + \frac{x - 7}{x^2 + 4}$$

for all real numbers x.

The roots of a quadratic polynomial $ax^2 + bx + c$ with $a \neq 0$ are given by the formula

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

The roots of a cubic polynomial of the form $x^3 - 3px - 2q$ are given by the formula

$$\sqrt[3]{q + \sqrt{q^2 - p^3}} + \sqrt[3]{q - \sqrt{q^2 - p^3}}$$

where the values of the two cube roots must are chosen so as to ensure that their product is equal to p.

$$f(x_1, x_2, \ldots, x_n) = x_1^2 + x_2^2 + \cdots + x_n^2$$

$$\frac{1 - x^{n+1}}{1 - x} = 1 + x + x^2 + \cdots + x^n$$

Let X be a Banach space and let $f\colon B \to \mathbf{R}$ be a bounded linear functional on X. The *norm* of f, denoted by $\|f\|$, is defined by

$$\|f\| = \inf\{K \in [0, +\infty] : |f(x)| \leq K\|x\| \text{ for all } x \in X\}.$$

$$f(x, y, z) = 3y^2 z \left(3 + \frac{7x + 5}{1 + y^2}\right).$$

$$\begin{aligned} \cos 2\theta &= \cos^2\theta - \sin^2\theta \\ &= 2\cos^2\theta - 1. \end{aligned}$$