

# CALCULUS

## Functions and expressions

### NEW

NEW 0020-1. Compute  $[(5/9)(F - 32)]_{F:\rightarrow 212}$ .

NEW 0020-2. Compute  $[(5/9)(F - 32)]_{F:\rightarrow -20}^{F:\rightarrow 15}$ .

NEW 0020-3. Compute  $[(5/9)x + 2, 500, 000]_{x:\rightarrow -20}^{x:\rightarrow 15}$ .

NEW 0020-4. Let  $f(x) = \sqrt{x - 1}$ ,  $g(x) = x^3/(x + 1)$ .

- Find the domain of  $f$ .
- Find the domain of  $g$ .
- Find the domain of  $f + g$ .
- Find the domain of  $fg$ .
- Find the domain of  $f/g$ .
- Find the domain of  $g/f$ .

0020-5. Collect terms in

NEW

$$3x^7 + 7x - 3x^2 - 2 - x - 4x + 2 - x^7 - 7x^2 + 5x^7$$

and display this polynomial  
with terms in increasing degree.

0020-6. Solve for  $x$  in:

NEW

$$\frac{7x - 6x + 3}{3} = -9(4x + 3 + 2x)$$