



Q1) Verify if $f(x)$ and $g(x)$ are inverses or not and show your work:

$$f(x) = 3x - 2 \text{ and } g(x) = \frac{x + 2}{3}$$

$$f(x) = \frac{x + 1}{x} \text{ and } g(x) = \frac{1}{x - 1}$$

Q2)

Temperature Conversion The formula for converting Celsius temperature (x) to Kelvin temperature is $k(x) = x + 273.16$. The formula for converting Fahrenheit temperature (x) to Celsius temperature is $c(x) = (5/9)(x - 32)$.

- (a) Find a formula for $c^{-1}(x)$. What is this formula used for?
- (b) Find $(k \circ c)(x)$. What is this formula used for?

Q3) Give one example of two basic functions (from the previous lesson) that are inverses to each other, and give another example of one basic function that is inverse to itself?