If $A(x) = 1.07x$, then

$(A \circ A)(x) = A(A(x)) = A(1.07x) = 1.07(1.07x) = (1.07)^2 x,$

$(A \circ A \circ A)(x) = A((A \circ A)(x)) = A((1.07)^2 x) = 1.07(1.07)^2 x = (1.07)^3 x,$

and

$(A \circ A \circ A \circ A)(x) = A((A \circ A \circ A)(x)) = A((1.07)^3 x) = 1.07(1.07)^3 x, = (1.07)^4 x.$

These compositions represent the amount of the investment after 2, 3, and 4 years.

Based on this pattern, when we compose n copies of A, we get the formula $\underbrace{(A \circ A \circ \cdots \circ A)}_{n \ A's}(x) = (1.07)^n x.$