CS 5722, Fall 2014 **Homework 13**
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a

The equation is:

$$\begin{aligned}
f(x) &= x + ((x + (((x + (cos(x - x) - (x - x))) * x) * x)) * x) \\
&= x + ((x + (((x + (cos(0) - 0)) * x) * x)) * x) \\
&= x + ((x + (((x + 1) * x) * x)) * x) \\
&= x + ((x + ((x^2 + x) * x)) * x) \\
&= x + ((x + x^3 + x^2) * x) \\
&= x + (x^2 + x^4 + x^3) \\
&= x^4 + x^3 + x^2 + x
\end{aligned}$$

b

The only unnecessary term is $(-XX)$ that is subtracted from the cosine term. The term $(-(COS(-XX))(-XX))$ could simply be $(COS(-XX))$.