You may have added h and g instead of subtracting them. Set up the problem as follows:

$$\left(\frac{h-g}{f}\right) = \frac{h(x) - g(x)}{f(x)} = \frac{12x^3 + 6x^2 + 20 - \left(-12x^2 + 6x + 20\right)}{6x}$$

Be careful to distribute the minus sign to all terms in g. Combine like terms, factor the numerator, and simplify.