Algebra/Triangle Review

1. Find a common denominator and simply the expression \( \frac{1}{x} + \frac{2}{x-3} \).

2. Solve \( \frac{3}{x} + 1 = \frac{1}{4} \) for \( x \).

3. Solve \( 3x^2 + 10x - 8 = 0 \) for \( x \) by factoring.

4. Solve \( 3x^2 + 2x - 4 = 0 \) for \( x \) using the quadratic formula.
5. Solve for both $x$ and $h$ if $\frac{h}{x} = 2$ and $\frac{h}{3-x} = 3$.

6. Determine the values of $a$ and $\theta$ in the following triangle.