The following are additional homework problems. They are representative of what to expect on the forthcoming Basic Math Mini-Test. It should not take you longer than one (1) minute to do each problem without error. The Basic Math Mini-Test is timed accordingly.

1. Solve for the numerical value of $X$: $F + 2 = X$
   $F - 10 = \frac{1}{2} X$

2. You know that $A$ is a negative number, but you do not know whether $B$ is positive or negative. You also know that $X$ is the sum of $B$ and twice $A$. Express $X$ in terms of $A$ and $B$, i.e., $X = \ldots$

3. Express the length $b$ in terms of the parameters $F$ and $\theta$ shown in the figure at the right.

4. What is the derivative with respect to $x$ of $y(x) = 2x^{-3} + x \sin(x) + \ln(x^{-2}) + 2e^{3x}$?

5. Two similar right triangles are perpendicular to one another, as shown in the figure at right. Express the length $b$ in terms of the parameters $A$ and $\theta$. 