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Homework 1
Due Wednesday 1/26/2011 in class

</div>

Name: _____   **Section Number:** _____

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This cover sheet must be attached as the top page of your homework.

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1. Solve the following inequality:
$$|8 - 2s| \leq 12$$

2. Find the slope, y-intercept, and x-intercept of the following line. Sketch a graph of the line.
$$5x + 3y - 15 = 0.$$

3. Find the equation in standard form for the line passing through $(4, 5)$ parallel to the line passing through $(2, 1)$ and $(5, 9)$.

4. Use trig identities to find the exact value of $\cos\left(\frac{5\pi}{6}\right)$.

5. Find the composite functions $f(g(x))$ and $g(f(x))$:

   (a) $f(x) = \sin(x)$, $g(x) = 1 - x^2$
   (b) $f(x) = \frac{1}{x}$, $g(x) = \tan(x)$
   (c) $f(u) = \frac{u-1}{u+1}$, $g(u) = \frac{u+1}{1-u}$