Quiz 8, due Weds. Apr 12th.

Carefully draw the three lines

\[
\begin{align*}
    x + y &= 10 & (l_1) \\
    y &= 6x - 18 & (l_2) \\
    3y - x &= 6 & (l_3)
\end{align*}
\]

The three lines intersect to form a triangle in the first quadrant. Label the corners \(A = \) intersection of \(l_1\) and \(l_2\), \(B = \) intersection of \(l_1\) and \(l_3\), and \(C = \) intersection of \(l_2\) and \(l_3\).

As stated, carefully graph the lines, then lightly shade the triangular region they enclose, and label the lines and corners as indicated.

Now find the \(x\) and \(y\) coordinates of the corners. Use at least two of the methods for finding the intersection of two lines that we have discussed.