There is another type of hyperbola called an **equilateral hyperbola**.

**Standard Form for the Equation of an Equilateral Hyperbola:**

If \( c > 0 \), the branches of the equilateral hyperbola are in the 1\textsuperscript{st} and 3\textsuperscript{rd} quadrants.
If $c < 0$, the branches of the equilateral hyperbola are in the 2nd and 4th quadrants.
Ex. Graph \(4xy = -36\).

1. First, isolate \(xy\).

2. Graph the transverse axis.

3. Make an \(x\ y\) chart and find values for \(x\) and \(y\) that satisfy the equation. (Hint: the perfect square roots of \(c\) will be the vertices of the hyperbola.)

\[
\begin{array}{|c|c|}
\hline
x & y \\
\hline
\hline
\end{array}
\]