Terry is drawing isosceles triangles with side lengths $a$, $b$, and $c$ such that

\[ a = y - x \]
\[ b = x + z \]
\[ c = y - z \]

Where $x$, $y$, and $z$ are positive integers and $x + y + z < 10$.

Find all the possible triples $(a, b, c)$ that satisfy this.