

Question #70621, Math / Linear Algebra

Three of the best-selling albums of 2013 were Justin Timberlake's The 20120 Experience, Eminem's The Marshall Mathers LP2, and Imagine Dragons' Night Visions. Eminem's album sold 0.33 million more copies than Imagine Dragons'. The number of Justin Timberlake albums sold was 0.37 million less than twice the number of Imagine Dragons' sales. The three recording artists sold a total of 5.56 million albums. How many albums did each artist sell?

Answer.

**Let x be the number of Justin Timberlake albums sold,
 y - number of Eminem albums sold and z - number of Imagine Dragons' albums sold.**

$$\begin{cases} y = z + 0.33 \\ x = 2z - 0.37 \\ x + y + z = 5.56 \end{cases}$$

$$\text{So } 2z - 0.37 + z + 0.33 + z = 5.56$$

$$4z = 5.60$$

$$z = 1.40.$$

$$y = 1.40 + 0.33 = 1.73,$$

$$x = 1.40 * 2 - 0.37 = 2.43.$$

Answer provided by <https://www.AssignmentExpert.com>