2. Consider the following linear system:

$$\begin{aligned}
-2x_1 - x_2 + 10x_3 &= 1, \\
3x_1 + x_2 - 13x_3 &= 0, \\
-2x_1 + 6x_3 &= -2,
\end{aligned}$$

in variables x_1, x_2, and x_3. Write the general solution in parametric form.

(a) What is the RREF of the augmented matrix?

(b) What is the rank of the augmented matrix?

(c) Give the solution to the system in parametric form.