Solve the equation
\[
\frac{2}{x^2 - x} + \frac{x + 1}{x - 1} = \frac{2x + 3}{x}.
\]

**Solution:**
The domain of this equation is
\[
D = \{ x \in \mathbb{R} : x \neq 0, 1 \}.
\]

Taking a common denominator, we obtain the new equation
\[
2 + (x + 1) x = (2x + 3) (x - 1)
\]
\[
2x^2 + x - 3 - 2 - x^2 - x = 0
\]
\[
x^2 - 5 = 0
\]
\[
x^2 = 5
\]
\[
x = \pm \sqrt{5}
\]

Since both \( \pm \sqrt{5} \in D \), it follows that the solution to the given equation is
\[
x = \pm \sqrt{5}.
\]