1. Let \( f \) be a function of \( x \) such that \( f(x) = \frac{x + 1}{x^2 - 1} \). What is \( f(-2) \)?

**Solution:**
\[
f(-2) = \frac{(-2) + 1}{(-2)^2 - 1} = \frac{-1}{4 - 1} = \frac{-1}{3}.
\]

2. If \( f(x) = x^2 - 6 \), what is \( f(x + 2) \)? Simplify your answer.

**Solution:**
\[
f(x + 2) = (x + 2)^2 - 6 = x^2 + 4x + 4 - 6 = x^2 + 4x - 2.
\]

3. Let \( A = \{1, 2, 3, 4\} \) and \( B = \{1, 3, 5, 7, 9\} \). Draw an arrow diagram that gives a nonfunction from \( A \) to \( B \).

**Solution:** Here is one possible solution; there are many.

\[
\begin{array}{c|c}
A & B \\
\hline
1 & 1 \\
2 & 3 \\
3 & 5 \\
4 & 7 \\
\end{array}
\]