13-1. Let \( f \) be the function specified by the global input-output rule
\[
x \mapsto f(x) = +26x^3 - 45.52x^2 - 179.54x - 15.82
\]
Determine:

\( i. \) The local input-output rule of \( f \) near \( \infty \)
\( ii. \) The local graph of \( f \) near \( \infty \)
\( iii. \) The Height-sign of \( f \) near \( \infty \)
\( iv. \) The Slope-sign of \( f \) near \( \infty \)
\( v. \) The Concavity-sign of \( f \) near \( \infty \)

13-2. Let \( f \) be the function specified by the global input-output rule
\[
x \mapsto f(x) = -4x^3 + 3x^2 - 2x + 1
\]
Determine:

\( i. \) The local input-output rule of \( f \) near \(-2\)
\( ii. \) The local graph of \( f \) near \(-2\)
\( iii. \) The Height-sign of \( f \) near \(-2\)
\( iv. \) The Slope-sign of \( f \) near \(-2\)
\( v. \) The Concavity-sign of \( f \) near \(-2\)
13-3. Let $f$ be the function specified by the global input-output rule:

$$x \xrightarrow{f} f(x) = x^3 - 3x^2 - 9x + 7$$

Determine:

i. The local input-output rule of $f$ near $+3$

ii. The local graph of $f$ near $+3$

iii. The Height-sign of $f$ near $+3$

iv. The Slope-sign of $f$ near $+3$

v. The Concavity-sign of $f$ near $+3$

13-4. Let $f$ be the function specified by the global input-output rule:

$$x \xrightarrow{f} f(x) = x^3 + 6x^2 + x - 5$$

Determine:

i. The local input-output rule of $f$ near $-2$

ii. The local graph of $f$ near $-2$

iii. The Height-sign of $f$ near $-2$

iv. The Slope-sign of $f$ near $-2$

v. The Concavity-sign of $f$ near $+3$