5. [6 points] Let \( g \) be the function defined by

\[ g(x) = \frac{10(x - 1)(x - 2)}{(2x + 1)(x^2 + 2x - 1)}. \]

Find all zeros, \( y \)-intercepts, and horizontal and vertical asymptotes of the graph of \( y = g(x) \). If appropriate, write “NONE” in the answer blank provided.

(Show your work and write your answers in exact form.)

zero(s): ____________________

\( y \)-intercept(s): ____________________

horizontal asymptote(s): ____________________

vertical asymptote(s): ____________________

6. [5 points] Find all solutions to the equation \( 5 \sin(2t) = -\pi \) for \( 0 \leq t \leq \pi \).

(Show your work clearly and give your final answer(s) in exact form.)

Answer(s): ____________________