

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): \_\_\_\_\_