

Name: KEY

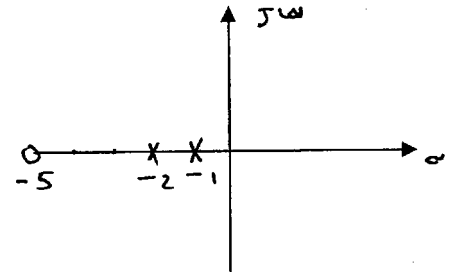
Sec. 3

1. Sketch the pole-zero plot for the following transfer function  $H(s) = (s+5)/(s^2+3s+2)$  (3 points)

$$H(s) = \frac{(s+5)}{(s^2+3s+2)} = \frac{s+5}{(s+1)(s+2)}$$

Zero at  $s = -5$

Poles at  $s = -1$  &  $s = -2$



What is the type of response for the above case (under-damped, over-damped, critical damped) (1 point)

2. Find the transfer function  $H(s) = E_2(s)/E_1(s)$  for the given circuit. Assume ideal op amp (6 points)

Simplify your answer

This part is the same as sec 1

See solution

Q5 082 sec 3

$$H(s) = \frac{-3}{s}$$

