Vehicular Electronics HW2

2018324133 김태우

All code is written in matlab.

**Q1.**

**Description**

Used rlocus function to draw root locus.

**Source**

|  |
| --- |
| num = [1 1];  den = [1 3.6 0 0];  rlocus(num, den); |

**Answer**

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**Q2.**

**Description**

Used rlocus function to draw root locus.

Determine the range of gain K for stability, used Routh-Hurwitz Criterion.

s3 | 1 3

s2 | 3 K-7

s1 |

s0 |

Therefore, The range is 7 < K < 16

**Source**

|  |
| --- |
| num = [1];  den = [1 3 3 -7];  rlocus(num, den); |

**Answer**

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**Q3.**

**Description**

Used rlocus function to draw root locus.

**Source**

|  |
| --- |
| num = [1 1];  den = conv([1 2 2], [1 2 5]);  rlocus(num, den); |

**Answer**

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