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|  |  | KVL |
|  |  | EQ 1.1 |
|  |  | Take Derivative. |
|  |  |  |
|  |  | EQ 1.2 |
|  |  |  |
|  |  | EQ 1.3 |
|  |  |  |
|  |  | Because right side of ‘=’ is constant 0. |
|  |  |  |
|  |  | Differential Equations. (DE) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | EQ 1.4 |
|  |  |  |
|  |  | Quadratic Equation. |
|  |  |  |
|  | | |
|  |  |  |
|  |  | “Critical Damping” |
|  |  |  |
|  |  | “Over-Damped’ |
|  |  |  |
|  |  | “Under-Damped” |
|  |  |  |
|  |  | “Un-Damped” |
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|  |  |  |
|  |  | Solve in terms of V across R |

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|  |  | KCL |
|  |  | EQ 2.1 |
|  |  | Take Derivative. |
|  |  | EQ 2.2 |
|  |  |  |
|  |  | EQ 2.3 |
|  |  |  |
|  |  | Because right side of ‘=’ is constant 0. |
|  |  |  |
|  |  | Differential Equations. (DE) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | EQ 2.4 |
|  |  |  |
|  |  | Quadratic Equation. |
|  |  |  |
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|  |  |  |
|  |  | “Critical Damping” |
|  |  |  |
|  |  | “Over-Damped’ |
|  |  |  |
|  |  | “Under-Damped” |
|  |  |  |
|  |  | “Un-Damped” |
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|  |  |  |
|  |  | Solve in terms of V across L |