Region of Convergence I

Consider the signal

$$g(t) = \begin{cases} e^{2t}, & t \geq 0 \\ e^{4t}, & t < 0 \end{cases}$$

The region of convergence of the Laplace transform of $g(t)$ is:

1. $2 < \mathrm{Re}[s] < 4$
2. $-4 < \mathrm{Re}[s] < 2$
3. $-2 < \mathrm{Re}[s] < 4$
4. $-4 < \mathrm{Re}[s] < -2$
5. There is no region of covergence
6. Don’t know

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Consider the signal

$$g(t) = \begin{cases} e^{2t}, & t \geq 0 \\ e^{4t}, & t < 0 \end{cases}$$

The region of convergence of the Laplace transform of $g(t)$ is:

The correct answer is:

1. $\heartsuit$ $2 < \mathrm{Re}[s] < 4$
2. $-4 < \mathrm{Re}[s] < 2$
3. $-2 < \mathrm{Re}[s] < 4$
4. $-4 < \mathrm{Re}[s] < -2$
5. There is no region of covergence
6. Don't know

Region of Convergence II

Consider the signal

$$g(t) = \begin{cases} e^{-2t}, & t \geq 0 \\ e^{-4t}, & t < 0 \end{cases}$$

The region of convergence of the Laplace transform of $g(t)$ is:

1. $2 < \mathrm{Re}[s] < 4$
2. $-4 < \mathrm{Re}[s] < 2$
3. $-2 < \mathrm{Re}[s] < 4$
4. $-4 < \mathrm{Re}[s] < -2$
5. There is no region of covergence
6. Don’t know

Region of Convergence II

Consider the signal

$$g(t) = \begin{cases} e^{-2t}, & t \geq 0 \\ e^{-4t}, & t < 0 \end{cases}$$

The region of convergence of the Laplace transform of $g(t)$ is:

The correct answer is:

1. $2 < \mathrm{Re}[s] < 4$
2. $-4 < \mathrm{Re}[s] < 2$
3. $-2 < \mathrm{Re}[s] < 4$
4. $-4 < \mathrm{Re}[s] < -2$
5. $\heartsuit$ There is no region of covergence
6. Don't know