DSP

Excercises 1

1. A graph of a function

   Description automatically generated
2. A graph with numbers and a line

   Description automatically generated

3.

A white background with black text

Description automatically generated

Let

Rewrite into Laplace functions

Solve L{x’}

Solve L{x}

Solve L{15u(t)}

Combine and rewrite

Apply partial fraction decomposition

Apply inverse Laplace transform

Check answer

4.

A math equation with black text

Description automatically generated

Let

Rewrite to laplace functions

Solve L{d^2x/dt}

Solve L{dx/dt}

Solve 2L{x}

Solve L{10u(t)}

Combine and rewrite with constants

Rewrite to X(s)