**7B Homogeneous Second Order Differential Equations**

Solve the equation:

**Case 1: b2 > 4ac**

Find and when

Find the auxiliary equation for

Summary: when b2 > 4ac then the solution will be in the form…

1. Find the general solution of the equation:

**Case 2: b2 = 4ac**

Show that

Satisfies the equation:

Summary: If b2=4ac then the solution will be in the form…

1. Find the general solution of the equation:

**Case 3: b2 < 4ac**

Find the general solution of the differential equation:

1. Find the general solution of the differential equation:

Summary: If b2=4ac then the solution will be in the form…

