**7C Particular Integrals of Second Order Differential Equations**

$$a\frac{d^{2}y}{dx^{2}}+b\frac{dy}{dx}+cy=f(x)$$

1. Find the solution of the differential equation:

$$\frac{d^{2}y}{dx^{2}}-5\frac{dy}{dx}+6y=3$$

$$\frac{d^{2}y}{dx^{2}}-5\frac{dy}{dx}+6y=2x$$

$$\frac{d^{2}y}{dx^{2}}-5\frac{dy}{dx}+6y=3x^{2}$$

$$\frac{d^{2}y}{dx^{2}}-5\frac{dy}{dx}+6y=e^{x}$$

$$\frac{d^{2}y}{dx^{2}}-5\frac{dy}{dx}+6y=13sin3x$$

1. Find the general solution to the following differential equation:

$$\frac{d^{2}y}{dx^{2}}-2\frac{dy}{dx}=3$$

Summary:

