Practical 1: Solution of First Order Differential Equation.

Q1. Solve the first order differential equation:

dy/dx-(5y/2x)+(2x/3y)=0

```
kill(all);
```

done

```
eq:'diff(y,x,1)-((5·y)/(2·x))+((2·x)/(3·y))=0;
```

$$\frac{\mathrm{d}}{\mathrm{d}\,x}y-\frac{5\,y}{2\,x}+\frac{2\,x}{3\,y}=0$$

```
sol:ode2(eq,y,x);
```

$$\frac{9\,y^2-4\,x^2}{3\,x^5}=\%c$$

```
kill(all);
```

done

```
eq:'diff(y,x,1)+((2·x·y)-3)/((x·x)+4·y);
```

$$\frac{\mathrm{d}}{\mathrm{d}\,x}y+\frac{2\,x\,y-3}{4\,y+x^2}$$

```
sol:ode2(eq,y,x);
```

$$2\,y^2+x^2\,y-3\,x=\%c$$

```
psol:ic1(sol,x=1,y=2);
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$$2\,y^2+x^2\,y-3\,x=7$$