7.To solve the differential equation y' = 2x + 3, we can first find the general solution of the equation by integrating both sides with respect to x.

Integrating both sides with respect to x:

 $\int y' dx = \int (2x + 3) dx$

 $y = x^2 + 3x + C$

where C is an arbitrary constant.

To find the particular solution, we can use the initial condition and substitute it into the general solution.

```
8. To find the actual speed of a boat sailing down a river, we can use the following formula:

Speed = \sqrt{(\text{Speed of boat})^2 + (\text{Speed of u(tent)}^2)}

In this case, the speed of the boat is 20 km/h and the speed of the current is 5 km/h so we can take a constant of equations.

Speed = \sqrt{(20)^2 + (5)^2}

Speed = \sqrt{(400 + 25)}

Speed = \sqrt{425}

Speed = 20.62 km/h
```

9.To find the volume of a cylinder given its radius and height, we can use the formula:

Volume = πr^2h

In this case, the radius is 5 cm and the height is 10 cm, so we can solve for the volume: