```
> numBuses := 1;
```

$$numBuses := 1$$

```
> bus := 1 - (1 - t/10)^numBuses;
```

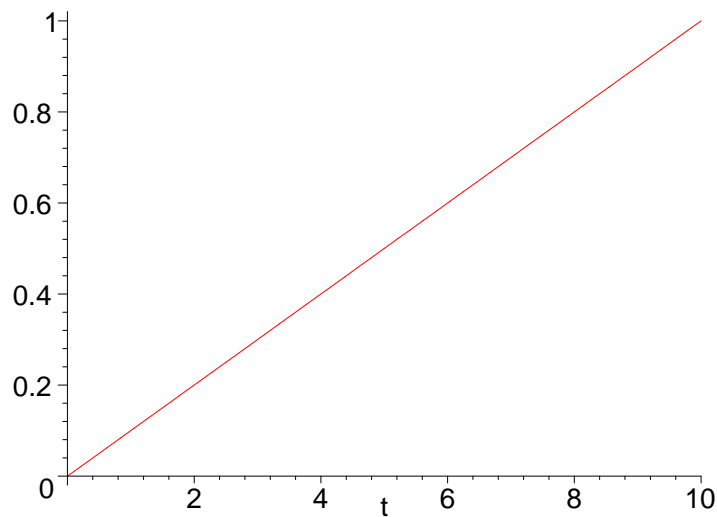$$bus := \frac{1}{10}t$$

The All-Important Probability Density Function (pdf)

```
> pdf := diff(bus, t);
```

$$pdf := \frac{1}{10}$$

The Expected Value (ev)

```
> ev := int(t*pdf, t=0..10);
```

$$ev := 5$$

```
> plot(t*pdf, t=0..10);
```



```
> var := int((ev - t)^2 * pdf, t=0..10);
  sd := sqrt(var);
  sd := evalf(sd);
```

$$var := \frac{25}{3}$$

$$sd := \frac{5}{3}\sqrt{3}$$

$$sd := 2.886751347$$

```
> 
```