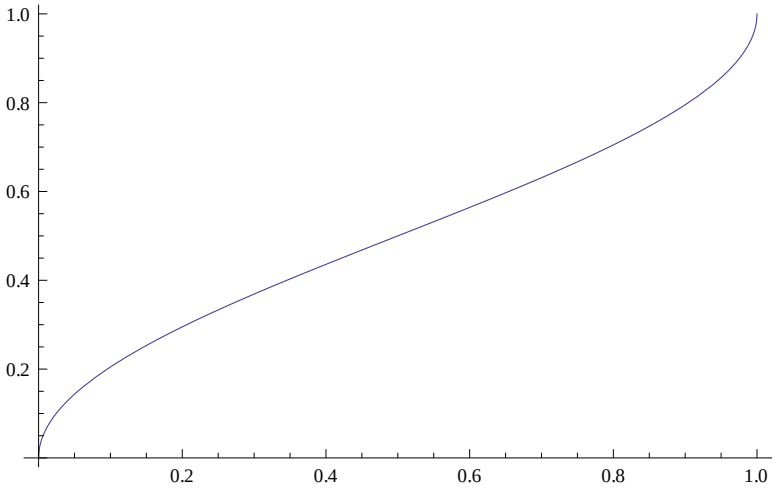
```
Exit[]
```

```
$Assumptions = t > 0 && a > 0 && b > 0
```

```
t > 0 && a > 0 && b > 0
```

```
Plot[f[1, x], {x, 0, 1}]
```



$$f[t\_, x\_] := \frac{2}{\pi}\, \text{ArcSin}\left[\sqrt{x / t}\,\right]$$

```
Integrate[1 - f[t, x], {x, 0, t}]
```

```
$Aborted
```

$$\text{Simplify}\left[D\left[\frac{1}{\sqrt{a\,(a+b)}}, b\right]\right]$$

$$-\frac{a}{2\,(a\,(a+b))^{3/2}}$$

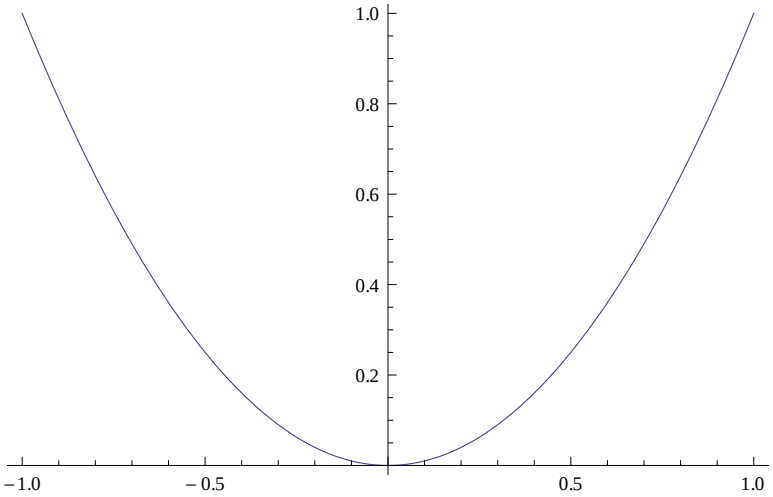
$$\text{Simplify}\left[-\frac{a}{2\,(a\,(a+b))^{3/2}} /. b \to 0\right]$$

$$-\frac{1}{2\,a^2}$$

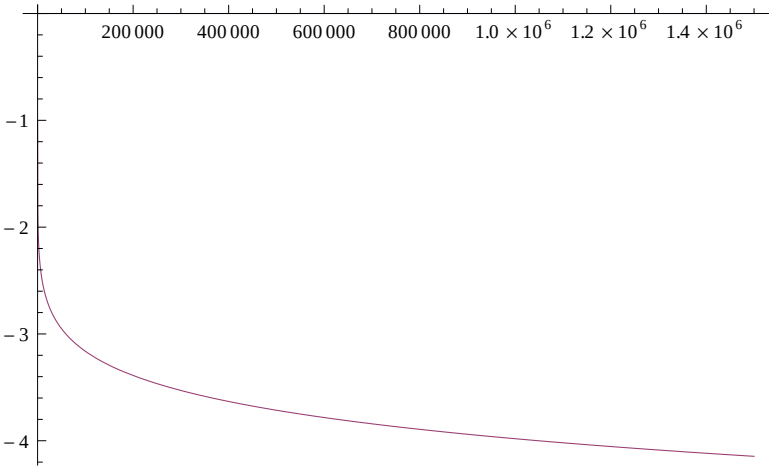
```
Series[Abs[x]^2, {x, 0, 3}]
```

```
Abs[x]^2
```

```
Plot[Abs[x]^2, {x, -1, 1}]
```




```
Plot[{0 Log[x], -x^.1}, {x, 1, 1500000}]
```




```
Limit[x^.1, {x → ∞}]
```

$\{\infty\}$

$$\text{Integrate}\left[w^2 \frac{2\,(2\,m - w)}{t\,\text{Sqrt}[2\,\pi\,t]}\,\text{Exp}\left[\frac{-(2\,m-w)^2}{2\,t}\right], \{w, -\infty, m\}\right]$$

$$\text{Integrate}\left[\frac{e^{-\frac{m^2}{2t}}\sqrt{\frac{2}{\pi}}\,\left(m^2+2t\right)}{\sqrt{t}} - 4\,m\,\text{Erfc}\left[\frac{m}{\sqrt{2}\,\sqrt{t}}\right], \{m, 0, 1\}\right]$$

$$-2 + e^{-\frac{1}{2t}}\sqrt{\frac{2}{\pi}}\,\sqrt{t} + (2+t)\,\text{Erf}\left[\frac{1}{\sqrt{2}\,\sqrt{t}}\right]$$

$$\text{Integrate}\left[w^2 \frac{2\,(2\,m - w)}{t\,\text{Sqrt}[2\,\pi\,t]}\,\text{Exp}\left[\frac{-(2\,m - w)^2}{2\,t}\right], \{w, -\infty, 1\}, \{m, 0, 1\}\right]$$

$$e^{-\frac{1}{2t}}\left(\sqrt{\frac{2}{\pi}}\,\sqrt{t} + e^{\frac{1}{2t}}\left(-2 + (2+t)\,\text{Erf}\left[\frac{1}{\sqrt{2}\,\sqrt{t}}\right]\right)\right)$$

$$\text{Plot}\left[\text{Erfc}\left[\frac{1}{\sqrt{t}}\right], \{t, 0, 500\}\right]$$