"This describes how to emptying a bath with
dimensions of 1.45 x 0.45 x 0.3 m time is in minutes"

```
DSolve[{h'[t] + k * Sqrt[h[t]] == 0, h[0] == H}, h[t], t]
```

Out[•]=

$$\left\{\left\{h[t] \to \frac{1}{4}\left(4H - 4\sqrt{H}\,k\,t + k^2 t^2\right)\right\}, \left\{h[t] \to \frac{1}{4}\left(4H + 4\sqrt{H}\,k\,t + k^2 t^2\right)\right\}\right\}$$

In[•]:=
$$y = \frac{1}{4}k^2\left(\frac{4H}{k^2} - \frac{4\sqrt{H}\,t}{k} + t^2\right)$$

Out[•]=

$$\frac{1}{4}k^2\left(\frac{4H}{k^2} - \frac{4\sqrt{H}\,t}{k} + t^2\right)$$

In[•]:=
```
k = 0.173
```

Out[•]=

```
0.173
```

In[•]:=
```
H = 0.3
```

Out[•]=

```
0.3
```

```
Plot[y, {t, 0, 6}]
```

Out[•]=