

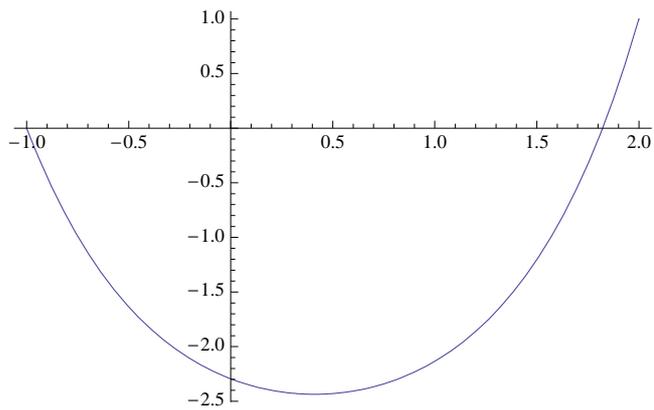
In[71]=

```
x1 = -1;  
y1 = 0;  
x2 = 2;  
y2 = 1;  
L = 7;
```

```
h = y2 - y1;  
l = x2 - x1;
```

```
sol = FindRoot[{L == a * Sinh[xp / a] - a * Sinh[xm / a], xp - xm == l,  
Cosh[xm / a] - Cosh[xp / a] == -h / a}, {{xp, 0.5}, {xm, -0.5}, {a, 0.1}}];  
xm = xm /. sol;  
xp = xp /. sol;  
a = a /. sol;  
g[x_] = a * Cosh[x / a];
```

```
f[x_] := g[x - x1 + xm] + y1 - g[xm]  
Plot[f[x], {x, x1, x2}]
```



Out[84]=