

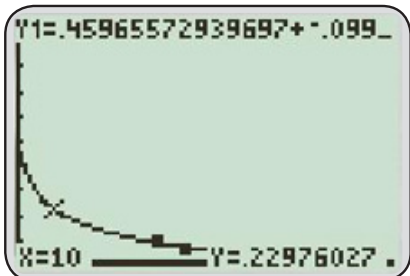
- If you have any difficulty with these solutions, please contact your teacher before continuing.

Page 462, *Your Turn*

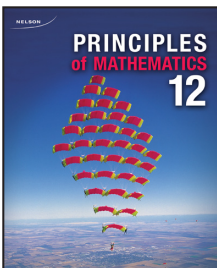
Enter the data to get the exact values for the regression equation. (Because the values in this question are so small, if you use the rounded values for the regression equation,  $y = 0.495 - 0.099 \ln x$ , your answer will *not* be accurate.)

```
LnReg
y=a+blnx
a=.4596557294
b=-.0998423299
```

To determine the  $t_{.1}$  flash duration, I interpolated the  $y$ -value from the graph at  $x = 10$ . ✓



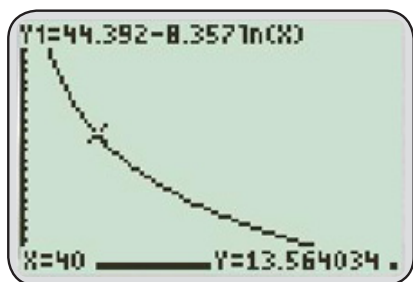
At about 0.23 s, the  $t_{.1}$  flash duration will have been reached. ✓



- If you have any difficulty with these solutions, please contact your teacher before continuing.

Page 465, *Your Turn*

Enter the data to get the exact values for the regression equation. (If you use the rounded values for the regression equation,  $y = 0.495 - 0.099 \ln x$ , your answer will *not* be accurate.)



I interpolated the  $y$ -value from the graph at  $x = 40$ . ✓

It takes about 13.6 h for Paula's caffeine levels to reach 40 mg. If she goes to bed at 10 p.m. and her caffeine levels must be *below* 40 mg, it means that she can have a coffee no later than about 13.6 h. before 10 p.m. This would correspond to 8:24 a.m.; therefore, Paula can have a coffee no later than 8:24 a.m. ✓