Challenge #14

Theoni has 582 Twinkies. She wants to eat one per day and pass them out to the twelve others in her math class. The teacher would like one too. How many days can she be in charge of the treats before running out of Twinkies? Will they last the entire school year? A semester? A quarter?

Challenge #14 Solution

582 Twinkies

14 people get a Twinkie each day.

Chart:

days t	# Twinkies Left L
0	582
1	$582-14=568$
2	$582-2(14)=554$
3	$582-3(14)=540$
4	$582-4(14)=526$
t	$582-t(14)$

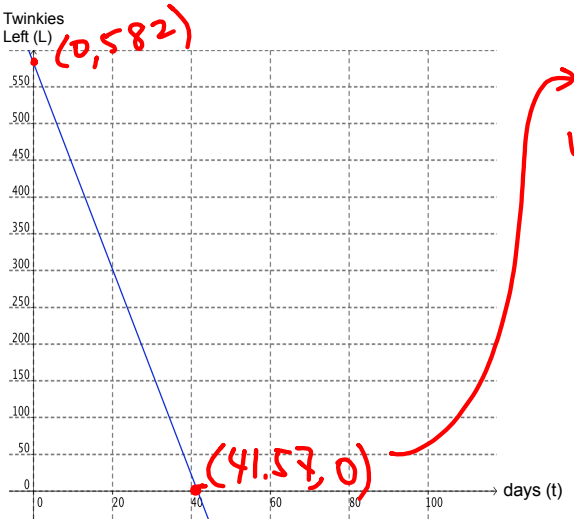
$582-0(14)$ ←

$582-1(14)$ ←

Equation:

$$L=582-14t$$

Graph:



→ we get this pt when there are no Twinkies left:

$0=582-14t$

$14t=582$

$t=\frac{582}{14}=41\frac{4}{7}$

5 school days in a week

⇒ 41 days is a little over 8 school weeks

which is just under a quarter of a school year.