$V_n = V_0 - n \times d$

$V_3 = 1000 - 3 \times 50$

$= 850$ ✓

x+y=5
-x+3y=6

x+y+z=5
x+2y-z=3
2x+y-3z=9

#1

$V_n = V_0 - n \times d$

$V_n = 1000 - n \times 50$

what n gives $V_n = 0$

$V_{30} = 1000 - 30 \times 50$

$= 1000 - 1500 = -500$

$V_{20} = 1000 - 20 \times 50$

$= 1000 - 1000 = 0$

#2

$V_n = V_0 - n \times d$

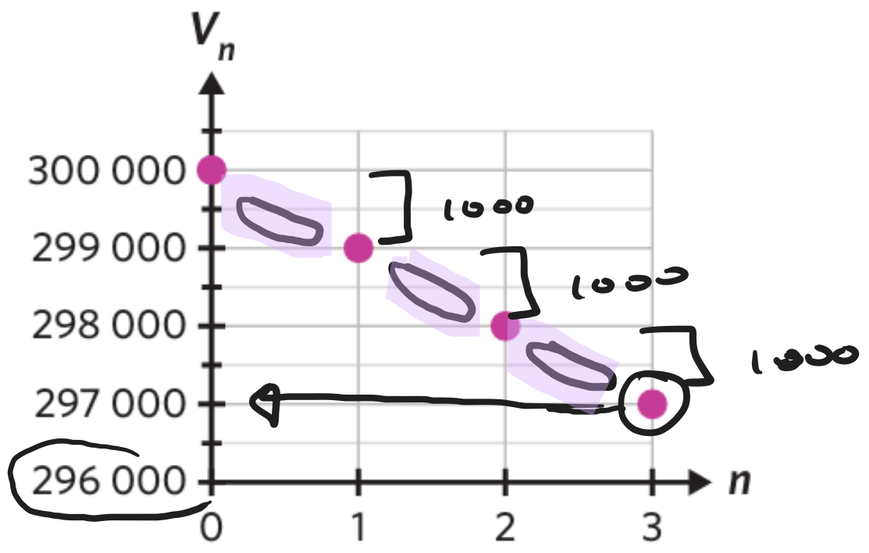
$V_n = 1000 - n \times 50$

sub $V_n = 0$

$0 = 1000 - n \times 50$

$\frac{n \times 50}{50} = \frac{1000}{50}$

$n = \frac{1000}{50} = 20$



$\frac{300000 - 297,000}{3}$

$= \frac{3000}{3} = 1000 = d$

$V_{n+1} = V_n - 1000$

$V_1 = V_0 - 1000$

$V_0 = 300,000$

$V_n = V_0 - n \times d$

$V_n = 300,000 - n \times 1000$

$V_{10} = 300,000 - 10 \times 1000$

$= 290,000$

Unit Cost Depreciation *n*th term Rule

$V_n = V_0 - nd$

- V_n is the value after n units of use
- V_0 is the principal
- d is the depreciation amount per unit of use

This formula is used when reducing by a fixed/constant value (like d=500), then n=1, 2, 3 will reduce the value by an extra 500 every time.

Reducing Balance Depreciation *n*th term Rule

$V_n = V_0 \times R^n$, where

- V_n is the value after n periods
- V_0 is the principal
- $R = 1 - \frac{r}{100}$
- r is the depreciation rate (%) per period

This formula is used when depreciating by a percentage value (like 10%), where r=10% and R=90% = 0.9