

#2

**PA6-2: Decreasing Sequences**

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In a **decreasing sequence**, each number is less than the one before it.

Inder wants to continue the number pattern:

25, 23, 21, ?

She finds the **difference** between the first two numbers:



25



24



23

$\begin{matrix} -2 \\ 25, 23, 21, ? \end{matrix}$

She finds that the difference between the other numbers in the pattern is also 2. So the pattern was made by subtracting 2.

$\begin{matrix} -2 & -2 \\ 25, 23, 21, ? \end{matrix}$

The final number in the pattern is 19:

$\begin{matrix} -2 & -2 & -2 \\ 25, 23, 21, 19 \end{matrix}$

1. Extend the following patterns:

a) 18, 15, 12,     ,     ,     

b) 32, 26, 20,     ,     ,     

c) 52, 47, 42,     ,     ,     

d) 34, 30, 26,     ,     ,     

e) 51, 46, 41,     ,     ,     

f) 84, 80, 76,     ,     ,     

g) 62, 51, 40,     ,     ,     

h) 97, 89, 81,     ,     ,     

i) 71, 64, 57,     ,     ,     

j) 62, 58, 54,     ,     ,     

k) 82, 73, 64,     ,     ,     

l) 84, 72, 60,     ,     ,     

Use decreasing sequences to solve these problems:

2. Judi has saved \$49. She spends \$8 each day.  
How much money does she have left after 5 days?

3. Yen has a roll of 74 stamps. She uses 7 each day for 4 days.  
How many are left?

