

PA6-2: Decreasing Sequences

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

Inder wants to continue the number pattern:

$$25, 23, 21, \underline{\quad ?}$$

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



$$25, 23, 21, \underline{\quad ?}$$

(-2)

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

$$25, 23, 21, \underline{\quad ?}$$

(-2) (-2)

The final number in the pattern is 19:

$$25, 23, 21, \underline{19}$$

(-2) (-2) (-2)

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?

