

PA3-5 Number Patterns Made by Adding or Subtracting

1. Extend the number pattern using the gap.

a) $6 \xrightarrow{+1} 7 \xrightarrow{+1} 8 \xrightarrow{+1} 9 \xrightarrow{+1} 10$

b) $8 \xrightarrow{-2} 6 \xrightarrow{-2} 4 \xrightarrow{-2} 2 \xrightarrow{-2} 0$

c) $5 \xrightarrow{+5} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

d) $3 \xrightarrow{+3} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

e) $8 \xrightarrow{+2} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

f) $14 \xrightarrow{+2} 16 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

g) $18 \xrightarrow{-2} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

h) $25 \xrightarrow{-5} 20 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

i) $9 \xrightarrow{-2} 7 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

j) $22 \xrightarrow{-3} 19 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

k) $15 \xrightarrow{+5} 20 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

l) $13 \xrightarrow{-1} 12 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

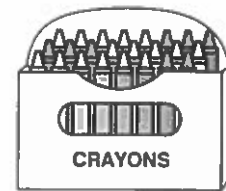
m) $29 \xrightarrow{-5} 24 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

n) $32 \xrightarrow{+5} 37 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

o) $41 \xrightarrow{+4} 45 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

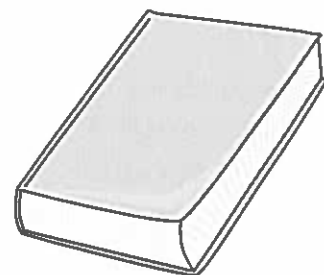
p) $46 \xrightarrow{-3} 43 \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$

2. a) Rani has a box of 24 crayons. She gives her brother 3 crayons each day for 4 days. How many crayons does she have left?



$24 \xrightarrow{-} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$
Day 1 Day 2 Day 3 Day 4

b) Amir has read 22 pages in his book. He reads 5 pages each day for 5 days. How many pages does he read in total?



$22 \xrightarrow{+} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc \xrightarrow{\quad} \bigcirc$
Day 1 Day 2 Day 3 Day 4 Day 5

Extend the number pattern.

Step 1: Does the pattern go up or down? This pattern goes up, so you need to add.

Step 2: Find the gap. Check that the gap is always the same.

Step 3: Add or subtract to continue the pattern.

3 , 5 , 7 , _____

3 $\begin{matrix} \circ \\ + \\ \circ \end{matrix}$, 5 $\begin{matrix} \circ \\ + \\ \circ \end{matrix}$, 7 $\begin{matrix} \circ \\ + \\ \circ \end{matrix}$, _____

3 $\begin{matrix} \circ \\ +2 \\ \circ \end{matrix}$, 5 $\begin{matrix} \circ \\ +2 \\ \circ \end{matrix}$, 7 $\begin{matrix} \circ \\ + \\ \circ \end{matrix}$, _____

3 $\begin{matrix} \circ \\ +2 \\ \circ \end{matrix}$, 5 $\begin{matrix} \circ \\ +2 \\ \circ \end{matrix}$, 7 $\begin{matrix} \circ \\ +2 \\ \circ \end{matrix}$, 9

3. Find the gap. Then extend the number pattern.

a) 5 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 8 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 11 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

b) 2 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 4 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 6 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

c) 6 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 10 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 14 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

d) 11 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 13 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 15 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

e) 21 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 24 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 27 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

f) 29 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 25 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 21 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

g) 25 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 23 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 21 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

h) 12 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 17 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 22 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

i) 12 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 9 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 6 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

j) 30 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 25 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 20 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

k) 17 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 20 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 23 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

l) 22 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 19 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 16 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

m) 45 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 48 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 51 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

n) 95 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 85 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 75 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____

BONUS ▶

o) 32 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 34 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 36 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____, _____, _____, _____, _____, _____

p) 75 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 72 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ 69 $\begin{matrix} \circ \\ , \\ \circ \end{matrix}$ _____, _____, _____, _____, _____, _____