

Counting patterns and multiples on the hundred square

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES ALGEBRA

HOW TO ANSWER TODAY

- Find the rule. Look at how each input changes to its output. Try $\times$ first, then $+$ or $-$.

$3 \rightarrow 6, 5 \rightarrow 10, 7 \rightarrow 14 \rightarrow$ rule is $\times 2$

TRY IT ON THE LINE

Use the hundred square to spot number patterns and multiples.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

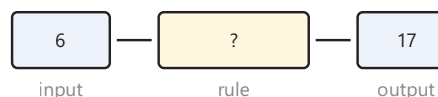
- Colour every multiple of the number in the lesson.
- Describe the pattern the coloured squares make.
- Count how many multiples there are up to 100.

PRACTICE

- Cian saves €19 in January, €25 in February, €31 in March and €37 in April from his pocket money. He adds the same amount each month. How much will he have saved by the end of May?

What comes next in the sequence: 19, 25, 31, 37, ___?

2



Tadhg's mam adds the same number of grapes to his lunchbox each day, on top of whatever crackers he packs. On Monday he packs 6 crackers and ends up with 17 items; on Tuesday he packs 8 crackers and has 19 items; on Wednesday he packs 1 cracker and has 12 items. What is the rule that takes the number of crackers to the total number of items?

CHALLENGE

1



Mr Ó Briain pins a number-rule chart on the 4th class noticeboard with three input-output pairs: $8 \rightarrow 32$, $3 \rightarrow 17$, and $7 \rightarrow 29$. What is the rule that turns each input into its output?

2

Tadhg is planting bean seeds in rows in the school polytunnel. The first row has 14 seeds, the next has 11, then 8, then 5. Following the same pattern, how many seeds are in the next row?

What comes next in the sequence: 14, 11, 8, 5, ___?