

describing number sequences

What is the tenth **number** in each of these sequences?

1	5	10	15	20	25
2	4	9	14	19	24
3	3	13	23	33	43
4	25	50	75	100	125
5	10	19	28	37	46
6	21	41	61	81	101
7	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
8	1.1	1.6	2.1	2.6	3.1
9	1	8	15	22	29
10	0.7	1.2	1.7	2.2	2.7
11	4	15	26	37	48
12	0.6	0.9	1.2	1.5	1.8
13	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
14	15	30	45	60	75



Choose a sequence. Write how someone could work out the 100th number.

Write the next two numbers in each sequence. Then predict the tenth number. In words, write the rule that you must follow to predict any number in the sequence.



1 11 21 31 41 51

2 7 12 17 22 27

3 9 19 29 39 49

4 13 23 33 43 53

Copy and complete each table. Write each rule using n .

5 Rule: Double the number, add 3.

1	2	3	4	5	6	7	8	9	10
5	7								

6 Rule: Multiply by 4, add 1.

1	2	3	4	5	6	7	8	9	10
5				21					

7 Rule: Multiply by 5, subtract 2.

1	2	3	4	5	6	7	8	9	10
3					28				



I am confident with finding patterns in number sequences and working out later numbers.

Write the next two numbers in each sequence.

- 1 2 7 17 37 77
 2 5 6 9 18 45

Copy and complete each table. Write each rule using n .

- 3 Rule: Double the number, add 13.

1	2	3	4	5	6	7	8	9	10
15	17								

- 4 Rule: Multiply by 3, add 9.

1	2	3	4	5	6	7	8	9	10
12		18							

- 5 Rule: Multiply by 6, subtract 6.

1	2	3	4	5	6	7	8	9	10
0					30				

Write the first six numbers and the 10th number in each sequence using the rule given.

- 6 $3n + 2$

1	2	3	4	5	6	...	10
						...	

- 7 $5n - 2$

1	2	3	4	5	6	...	10
						...	



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Write the next two numbers in each sequence.

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2 5 6 9 18 45

Copy and complete each table. Write each rule using n .

3 Rule: Double the number, add 13.

1	2	3	4	5	6	7	8	9	10
15	17								

4 Rule: Multiply by 3, add 9.

1	2	3	4	5	6	7	8	9	10
12		18							

5 Rule: Multiply by 6, subtract 6.

1	2	3	4	5	6	7	8	9	10
0					30				

Write the first six numbers and the 10th number in each sequence using the rule given.

6 $3n + 2$

1	2	3	4	5	6	...	10
						...	

7 $5n - 2$

1	2	3	4	5	6	...	10
						...	



I am confident with finding patterns in number sequences and working out later numbers.