

What Can You Use to Stick Falling Foliage Back on Trees?

Each exercise will give you a linear equation and a missing value. The two letters in front of the equation go in the two boxes above the missing value at the bottom of the page.

A. Write the next three values of y in each pattern. Then write an equation that shows the relationship between x and y . Use your equation to find the last y value in the table.

1.

x	1	2	3	4	5	6	7		30
y	6	8	10	12					

2.

x	1	2	3	4	5	6	7		30
y	11	13	15	17					

3.

x	1	2	3	4	5	6	7		25
y	7	11	15	19					

4.

x	1	2	3	4	5	6	7		25
y	23	26	29	32					

5.

x	1	2	3	4	5	6	7		20
y	16	31	46	61					

6.

x	1	2	3	4	5	6	7		20
y	17	29	41	53					

equations

ND $y = 4x + 3$

OO $y = 5x + 2$

SO $y = 12x + 3$

AF $y = 2x + 4$

SE $y = 3x + 20$

OT $y = 3x + 5$

BI $y = 3x + 2$

IT $y = 5x + 20$

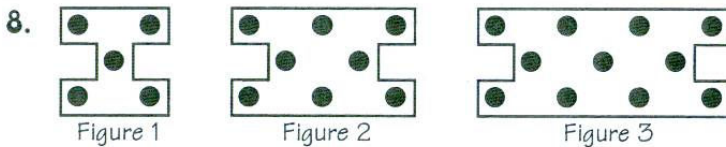
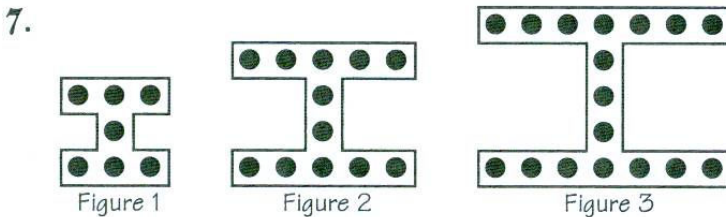
ER $y = 15x + 1$

AL $y = 2x + 9$

RE $y = 4x + 1$

LE $y = 12x + 5$

B. Draw the next figure in each pattern. Then write an equation that shows the relationship between the figure number (x) and the number of dots (y). Use your equation to find the number of dots in the **20th figure** of the pattern.



69	102	95	245	64	62	103	301		