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Math worksheet on *'Patterning - Equation for Geometric Pattern (Level 1)'*. Part of a broader unit on *'Patterns and Sums - Practice'*

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1

Find the correct equation to describe this geometric pattern where n=1 is the first term

1, 5, 25, 125

a	b
$a_n = 1 \times 5^{n-1}$	$a_n = 1 - 5(n-1)$

c	d
$a_n = a_{n-2} + a_{n-1}$	$a_n = 1 \times 5^n$

e	f
$a_n = -3 \times 5^{n-1}$	$a_n = 1 + 5(n-1)$

2

Find the correct equation to describe this geometric pattern where n=1 is the first term

1, 4, 16, 64

a	b
$a_n = 1 \times 2^{n-1}$	$a_n = 1 + 4(n-1)$

c	d
$a_n = 1 - 4(n-1)$	$a_n = 1 \times 3^{n-1}$

e	f
$a_n = 1 \times 4^{n-1}$	$a_n = 1 \times 4^n$

3

Find the correct equation to describe this geometric pattern where n=1 is the first term

3, 15, 75, 375

a	b
$a_n = 3 \times 5^n$	$a_n = 3 - 5(n-1)$

c	d
$a_n = 3 \times 6^{n-1}$	$a_n = 5 \times 5^{n-1}$

e	f
$a_n = 3 \times 5^{n-1}$	$a_n = 2 \times 5^{n-1}$

4

Find the correct equation to describe this geometric pattern where n=1 is the first term

2, 8, 32, 128

a	b
$a_n = 5 \times 4^{n-1}$	$a_n = 4 \times 4^{n-1}$

c	d
$a_n = 2 \times 1^{n-1}$	$a_n = 2 \times 4^{n-1}$

e	f
$a_n = -1 \times 4^{n-1}$	$a_n = 2 + 4(n-1)$

5

Find the correct equation to describe this geometric pattern where n=1 is the first term

3, 9, 27, 81, 243, 729

a	$a_n = 3 \times 3^{n-1}$
b	$a_n = 3 \times 0^{n-1}$
c	$a_n = 6 \times 3^{n-1}$
d	$a_n = a_{n-2} + a_{n-1}$
e	$a_n = 3 \times -1^{n-1}$
f	$a_n = 3 \times 3^n$

6

Find the correct equation to describe this geometric pattern where n=1 is the first term

1, 3, 9, 27, 81, 243

a	$a_n = a_{n-2} + a_{n-1}$
b	$a_n = 1 \times 3^n$
c	$a_n = -2 \times 3^{n-1}$
d	$a_n = 1 + 3(n-1)$
e	$a_n = 1 \times 3^{n-1}$
f	$a_n = 5 \times 3^{n-1}$

7

Find the correct equation to describe this geometric pattern where n=1 is the first term

3, 6, 12, 24, 48, 96

a	$a_n = 3 \times 2^{n-1}$
b	$a_n = 2 \times 2^{n-1}$
c	$a_n = -1 \times 2^{n-1}$
d	$a_n = 3 + 2(n-1)$
e	$a_n = 3 \times -2^{n-1}$
f	$a_n = a_{n-2} + a_{n-1}$