



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

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**2**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	1, 4, 16, 64	<b>b</b>	1, -3, -7, -11
<b>c</b>	1, 5, 6, 11	<b>d</b>	-3, -12, -48, -192
<b>e</b>	1, 5, 9, 13	<b>f</b>	1, 2, 4, 8

**4**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	2, 4, 6, 8, 10, 12	<b>b</b>	2, 2, 2, 2, 2, 2
<b>c</b>	6, 12, 24, 48, 96, 192	<b>d</b>	2, 0, -2, -4, -6, -8
<b>e</b>	2, 4, 8, 16, 32, 64	<b>f</b>	2, 10, 50, 250, 1,250, 6,250

**6**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	6, 30, 150, 750	<b>b</b>	3, 15, 75, 375
<b>c</b>	3, 8, 13, 18	<b>d</b>	1, 5, 25, 125
<b>e</b>	3, -2, -7, -12	<b>f</b>	3, 3, 3, 3

**1**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	2, 4, 8, 16, 32, 64	<b>b</b>	2, 6, 18, 54, 162, 486
<b>c</b>	2, 2, 2, 2, 2, 2	<b>d</b>	2, -1, -4, -7, -10, -13
<b>e</b>	-2, -6, -18, -54, -162, -486	<b>f</b>	2, 8, 32, 128, 512, 2,048

**3**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	2, 0, 0, 0	<b>b</b>	-2, -8, -32, -128
<b>c</b>	2, -2, -6, -10	<b>d</b>	2, 8, 32, 128
<b>e</b>	2, 6, 10, 14	<b>f</b>	2, 6, 18, 54

**5**

Choose the first values that this equation would create starting with  $n=1$

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

<b>a</b>	3, 1, -1, -3, -5, -7	<b>b</b>	6, 12, 24, 48, 96, 192
<b>c</b>	3, 6, 12, 24, 48, 96	<b>d</b>	3, 0, 0, 0, 0, 0
<b>e</b>	3, 5, 8, 13, 21, 34	<b>f</b>	3, 5, 7, 9, 11, 13

**7**

Choose the first values that this equation would create starting with  $n=1$

$$a_n = 3 \times 3^{n-1}$$

<b>a</b>	3, 18, 108, 648, 3,888, 23,328	<b>b</b>	3, 12, 48, 192, 768, 3,072
<b>c</b>	3, 6, 9, 12, 15, 18	<b>d</b>	3, 0, -3, -6, -9, -12
<b>e</b>	3, 9, 27, 81, 243, 729	<b>f</b>	3, 0, 0, 0, 0, 0