

1. Which statement correctly describes the pattern shown in the chart?

$x$	$y$
2	4
4	16
6	36
8	64

- A The  $y$  values are equal to 2 times the  $x$  values.
- B The  $y$  values are equal to  $x^2$ .**
- C As  $x$  increases by 2,  $y$  increases by 8.
- D As  $x$  decreases by 2,  $y$  decreases by 28.

2. This chart shows the number of raisins per ounce of a certain cereal. Based on the information in the chart, which number sentence best represents the number of raisins,  $r$ , in 12 ounces of cereal?

Cereal (in ounces)	Number of Raisins (per ounce)
3	27
5	45
7	63
9	81

- A  $r = 81 + 9$
- B  $r = 12 \times 9$**
- C  $r = 12 \times 3$
- D  $r = 12 + 9$

3. Which expression can be used to find the  $n$ th term in this sequence?

Position	1st	2nd	3rd	4th	5th	$n$ th
Value of Term	4	7	10	13	16	

- A  $3n$
- B  $n^3 + 3$
- C  $3n + 1$**
- D  $4n + 3$

4. Look for the pattern in the sequence of numbers below.

16, 22, 19, 25, 22, 28

Which rule describes this pattern best?

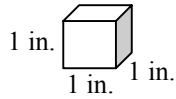
- A add 3, subtract 6
- B add 6, subtract 3**
- C add 16, subtract 6
- D add 9, subtract 6

5. Look at this table. What is the rule?

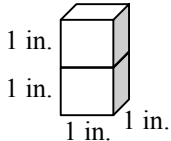
$\heartsuit$	$\text{\textcircled{w}}$
1	3
2	5
3	7
4	9
5	11

- A  $(\heartsuit \times 2) + 1 = \text{\textcircled{w}}$**
- B  $(\heartsuit \times \heartsuit) - 1 = \text{\textcircled{w}}$
- C  $(\heartsuit + 1) \times 2 = \text{\textcircled{w}}$
- D  $(\heartsuit - 2) \times 3 = \text{\textcircled{w}}$

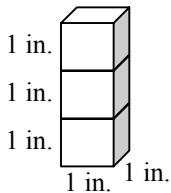
1. Look at the rectangular solid below:



**B<sub>1</sub>: volume = 1 in. × 1 in. × 1 in. = 1 cu. in.**



**B<sub>2</sub>: volume = 1 in. × 1 in. × 2 in. = 2 cu. in.**



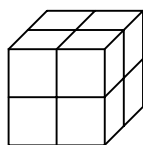
**B<sub>3</sub>: volume = ?**

What is the volume for solid B<sub>3</sub>?

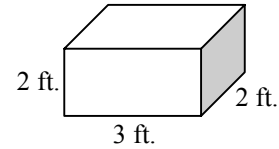
- A 1 in. + 1 in. + 3 in. = 5 cu. in.
- B 3 in. × 3 in. × 3 in. = 9 cu. in.
- C 1 in. × 1 in. × 3 in. = 3 cu. in.
- D 1 in. × 1 in. × 1 in. = 1 cu. in.

2. Jason constructed this cube using smaller blocks. He counts all of the blocks need to build this cube. This is an example of finding which measurement?

- A volume
- B area
- C perimeter
- D length



3. What is the volume of the rectangular box below?



- A 2 ft. × 3 ft. × 1 ft. = 6 cu. ft.
- B 2 ft. + 3 ft. + 2 ft. = 7 cu. ft.
- C 2 ft. × 3 ft. + 2 ft. = 8 cu. ft.
- D 2 ft. × 3 ft. × 2 ft. = 12 cu. ft.

4. Which model below shows a rectangular prism with a volume of 27 cubic units? {Each block equals 1 cubic unit}

