

SUNSHINE MATH - 7  
Neptune, XIX

Name: \_\_\_\_\_  
(This shows my own thinking.)

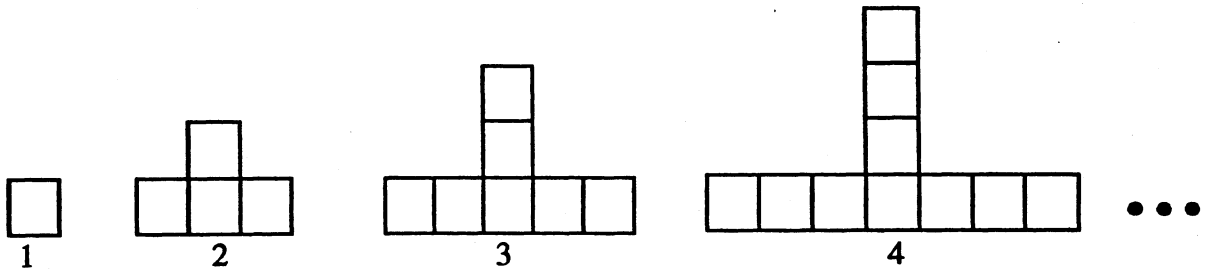
- ★★ 1. Which whole number values make this inequality true? Circle your choice.

$$\frac{X}{2} < 10$$

- a)  $X = 19, 20, \text{ or } 21$                       c)  $X = 0, 1, 2, \dots, 19$   
b)  $X = 41, 42, 43$                          d)  $X = 21, 22, 23, \dots$

- ★★★★ 2. The figures below form a pattern of squares. The *area* of the 1st figure is  $\frac{1}{16}$  inch<sup>2</sup>.

- a. What is the *perimeter* of the 1st figure? \_\_\_\_\_ inch  
b. What is the *area* of the 3rd figure? \_\_\_\_\_ inch<sup>2</sup>  
c. What is the *perimeter* of the 3rd figure? \_\_\_\_\_ inches  
d. What is the *area* of the 10th figure in the pattern? \_\_\_\_\_ inches<sup>2</sup>



- ★★★ 3. The scale on a map is:  $1 \text{ inch} = 16 \text{ miles}$ . A National Park is represented on this map by a square whose side is  $\frac{1}{8}$  inch. What is the actual area of the park in square miles.

Answer: \_\_\_\_\_ sq. mi.

- ★★ 4. If  $X + 2 = Y$  and  $Y + 1 = 5$ , then  $X =$  \_\_\_\_\_.

Answer: \_\_\_\_\_

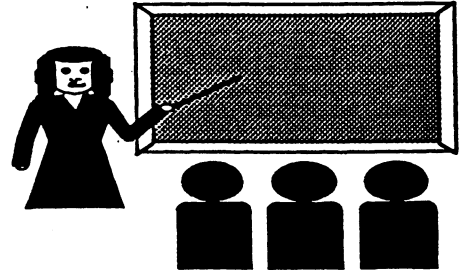
★★★ 5. If  $280 = N$ , then  $350 =$  \_\_\_\_\_.

- a)  $\frac{N}{4}$                       c)  $\frac{4N}{3}$   
 b)  $\frac{4N}{5}$                       d)  $\frac{5N}{4}$

Answer: \_\_\_\_\_

★★ 6. In a class of 30, 12 are boys. If 6 more boys join the class, what percent of the class is then boys?

Answer: \_\_\_\_\_ %

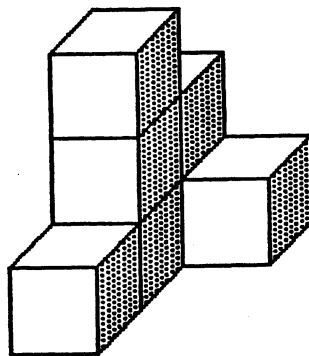


★★★ 7. In the correct addition shown below, A, B, and C are different non-zero digits. What is the value of C?

$$\begin{array}{r} B B \\ + B B \\ \hline A B C \end{array}$$

Answer: \_\_\_\_\_

★★★ 8. The figure below is made by gluing together 7 cubes. If the figure is dipped in a bucket of red paint and allowed to dry, how many square faces will have paint on them?



Answer: \_\_\_\_\_