

# SUNSHINE MATH - 6

## Uranus, XVII

Name: \_\_\_\_\_

(This shows my own thinking.)

- ★ 1. The star at the right is a "magic star."  
All fractions in each straight line have the same sum. What is the magic sum?

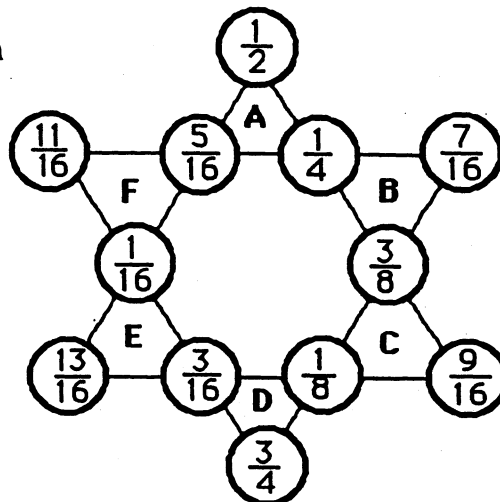
Answer: \_\_\_\_\_

- ★ 2. Add the fractions at the corners of the two large triangles. First, add the fractions  $\frac{1}{2} + \frac{13}{16} + \frac{9}{16}$ . Next, add  $\frac{11}{16} + \frac{7}{16} + \frac{3}{4}$ . What is the magic sum?

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

- ★ 3. Finally, add the fractions at the corners of small triangle A:  $\frac{1}{2} + \frac{5}{16} + \frac{1}{4}$ . Then add the fractions at the corners of each of the triangles marked B, C, D, E, and F. What is the sum of each small triangle?

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



- ★★★★ 4. Replace the letters  $a - j$  with the digits 0 - 9 to make each of these equations true. You may use each digit only one time.

a)  $a + 2 + 5 = 8$

b)  $6(b - 8) = 6$

c)  $8 + (c + 4) = d$

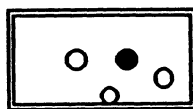
d)  $6 + e \times f = 30$

e)  $2(g - h) = 10$

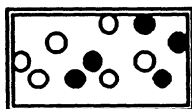
f)  $3i + j = 15$

$a = \_;$   $b = \_;$   $c = \_;$   $d = \_;$   $e = \_;$   $f = \_;$   $g = \_;$   $h = \_;$   $i = \_;$   $j = \_$

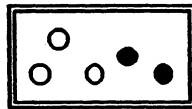
- ★★★★ 5. Rhonda went to a party where they were drawing marbles out of a box for prizes. The player wins if she draws out a black marble on the first draw. Circle the box below that would give Rhonda the best chance of winning.



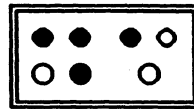
A



B



C



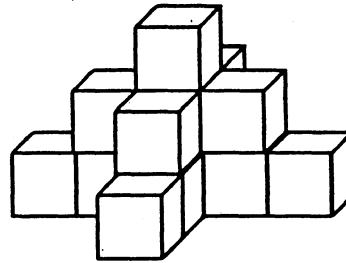
D

- ★ 6. Mrs. Walker bought a board 30 inches long for a class project. She needs to cut it into 1-inch pieces so that each student in her class will have a piece. How many cuts are required?

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

- ★ 7. Joaquin made the figure below by stacking up centimeter cubes. The figure looks this same way when viewed from the back side. What is the volume of the figure?

Answer: \_\_\_\_ cubic centimeters



- ★ 8. Fill in the blanks in the numbers below with the largest digit possible to make each statement true.

a) 4, \_ 2 3 is divisible by 3.      b) 2 \_\_, 9 3 6 is divisible by 9.

- ★★★ 9. The "unit fractions" are those whose numerator is 1, such as  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$  and so on. Find three different unit fractions whose sum is a whole number.

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

- ★ 10. Jessie's total score after 3 games of bowling was 456. If she scored 132 in the fourth and final game, what was her average score per game?

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