

SUNSHINE MATH - 6
Uranus, XXVI

Name: _____

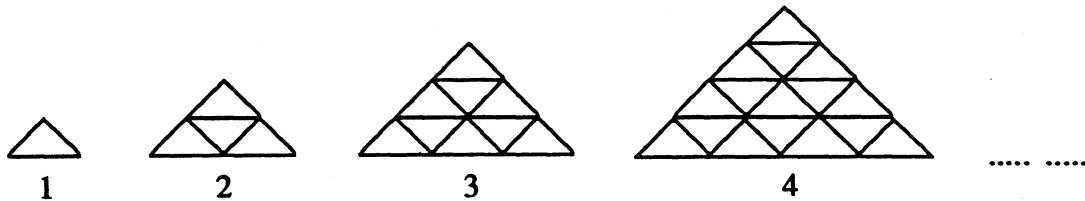
(This shows my own thinking.)

- ★★ 1. For every new car made, 5 tires and 2 headlights must be made also. If the car manufacturer purchased 400 tires for its new cars one week, how many headlights did they need to purchase for those cars?



Answer: _____ headlights

- ★★★ 2. The drawing below shows triangles made from toothpicks, in a pattern. Figure 1 requires 3 toothpicks; figure 2 requires 9.



- a. How many toothpicks would be required for the 5th figure? _____
b. How many toothpicks would be required for the 6th figure? _____
c. How many toothpicks would be required for the 10th figure? _____

- ★ 3. Ashley is reading her favorite novel a second time and has read $\frac{2}{5}$ of it. The book is 495 pages long. How many more pages does she have to read to finish the book?

Answer: _____ pages

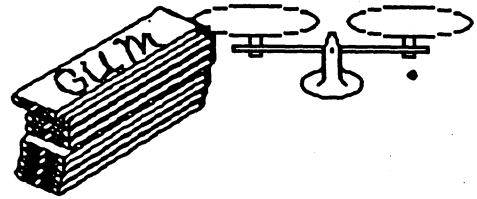


- ★★ 4. Daniel is using masking tape to hang pictures around the classroom. Each picture uses 1 ft. 2 in. of tape. How many pictures can he hang if he has a 20-foot roll of tape?

Answer: _____ pictures

- ★★★★ 5. Your teacher caught you chewing gum and took away the rest of the pack—9 sticks. He removed the wrapping from one stick, replaced the gum with a piece of cardboard the same size and shape but which weighed less. He then re-wrapped it. Now the lighter-weight stick looks and feels like the rest.

You can avoid going to the principal. You must tell him how to find the fake piece by using the balance scale only two times. Explain your reasoning, or go ahead on down the hall.



Answer: *Attach a sheet of paper with your explanation, that starts like this:*

For the first weighing, I would:

For the second weighing, I would:

- ★ 6. A deep-sea fishing boat is tied to a dock in the harbor. Over its side hangs a rope ladder with its bottom rung almost touching the water. Rungs of the ladder are 1 foot apart. The tide begins rising at the rate of 8 inches per hour. At the end of six hours, how many rungs will be covered by water?

Answer: _____

- ★★ 7. A traffic court judge imposed a fine for speeding. The fine was \$80, plus \$1.75 for every mile per hour the speed limit was exceeded. What was the fine the judge imposed for traveling 57 mph in a 45 mph zone?

Answer: _____

- ★ 8. A square garden has five fence posts on each side. How many fence posts are there around the garden?

Answer: _____

- ★★★ 9. If you and four of your friends can stand on a square yard of carpet, how many of you can stand in a classroom that is 27 feet by 36 feet?

Answer: _____ people