

MATH SUPERSTARS – 4

Jupiter, XXI

Name: _____

(This shows my own thinking.)

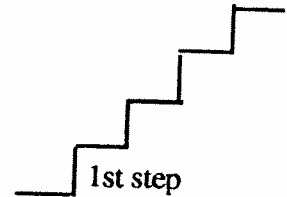
- ★★★ 1. A cricket and a flea decided to hop on a set of stairs. The flea takes 2 steps in 1 hop. The cricket takes 3 steps in 1 hop. The set of stairs has 12 steps.

a. On which steps will both the cricket and the flea land?

Answer: _____

b. On which steps will neither of them land?

Answer: _____



- ★★ 2. Bill Cosby is one of the leading money makers in the entertainment business. If he earns \$92 million for two years' work, how much would he earn for five years' work?

Answer: \$ _____ million

- ★ 3. The answer to problem 2 uses a short word name for a large number. Rewrite the answer to problem 2, but do not use "million." Remember -- this answer involves money!

Answer: _____

- ★★★ 4. Study the bar graph which shows the average precipitation for the month of June in the United States. Answer the questions pertaining to the graph.

a. Was June 1995 drier or wetter than normal?

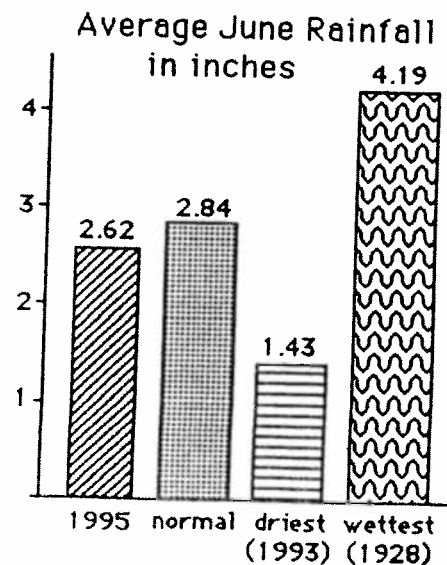
Answer: _____

b. What is the difference in rainfall between the wettest and driest Junes on record?

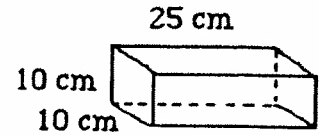
Answer: _____ inches

c. How many years' difference exists between June 1995 and the wettest June on record?

Answer: _____ years



- ★★★ 5. A bricklayer is working with bricks of the size shown to the right. She puts a 2-cm layer of mortar between each row of bricks. How high will the wall be when 10 rows have been laid?



Answer: _____ cm

- ★★ 6. It is recommended that children from ages 7 to 10 eat about 2000 calories per day. Andy is 8 years old. Listed below is everything Andy ate Tuesday. Did Andy eat less than, more than, or equal to the recommended amount of calories?

Breakfast
cereal (240 cal.)
milk (225 cal.)
banana (100 cal.)

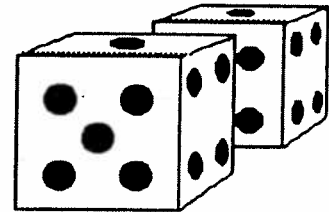
Lunch
Egg-salad sandwich (230 cal.)
applesauce (53 cal.)
milk (150 cal.)
potato chips (105 cal.)

Snack
cheese (114 cal.)
crackers (20 cal.)
yogurt (180 cal.)

Dinner
lasagna(330 cal.)
milk (150 cal.)
pear (90 cal.)
ice cream (230 cal.)

Answer: _____

- ★★★ 7. You can roll two dice at a time, a white one and a red one, and there are 36 different ways for the “up faces” to land. The pair of dice to the right show the only way that a sum of two can come up. How many of ways will give a sum of 7 on the two up faces?



Answer: _____ ways

- ★★★ 8. About how many people lying head-to-toe are needed to stretch around the earth? Is it closest to: (a) 1 million, (b) 25 million, or (c) 100 million? (Hint: The distance around the earth is approximately 25,000 miles.)

Answer: _____

