

A Potpourri of Problems from the Press

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Is the following a good deal?
Explain.

House Warming.

Get your home ready for the holiday season now and save \$\$\$! For a limited time, take 1/2% OFF all In-stock FABRICS and 20% OFF on all CARPET & DRAPERIES!

Ask Marilyn

Say that a bottle and cork cost \$1.10 together. Also say that the bottle costs \$1 more than the cork. What does the cork cost?

- D. Blume, Annandale, Va.

Ask Marilyn

The answer to a problem is 45678. You arrive at this by subtracting one number from another. The two numbers contain the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. You must use each of these digits once, but only once. What two numbers do you subtract to arrive at this answer?

- Janis Bennion, Salt Lake City,
Utah

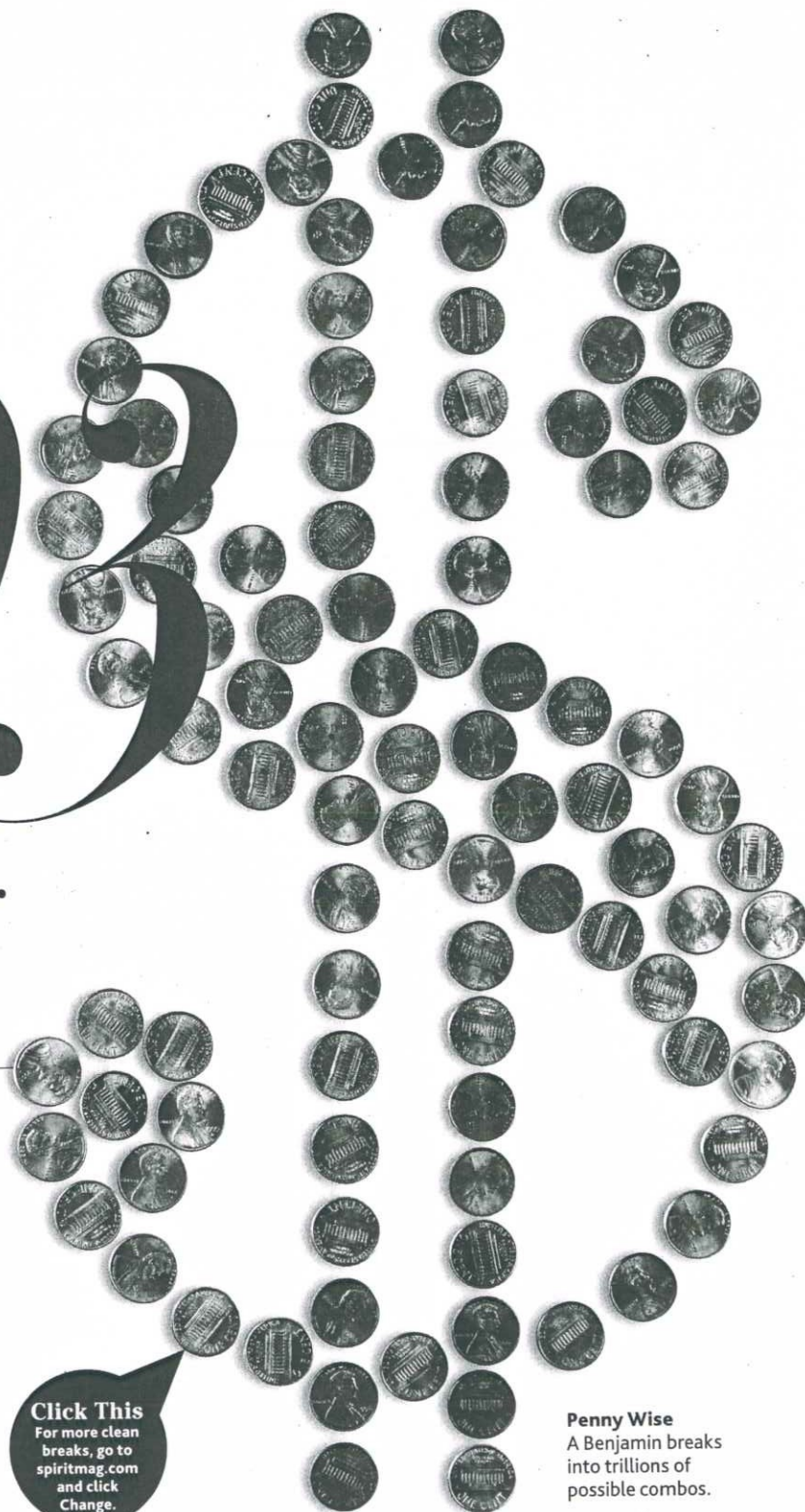
This is a nice one for the math classes.

You can break a dollar in 292 different ways.

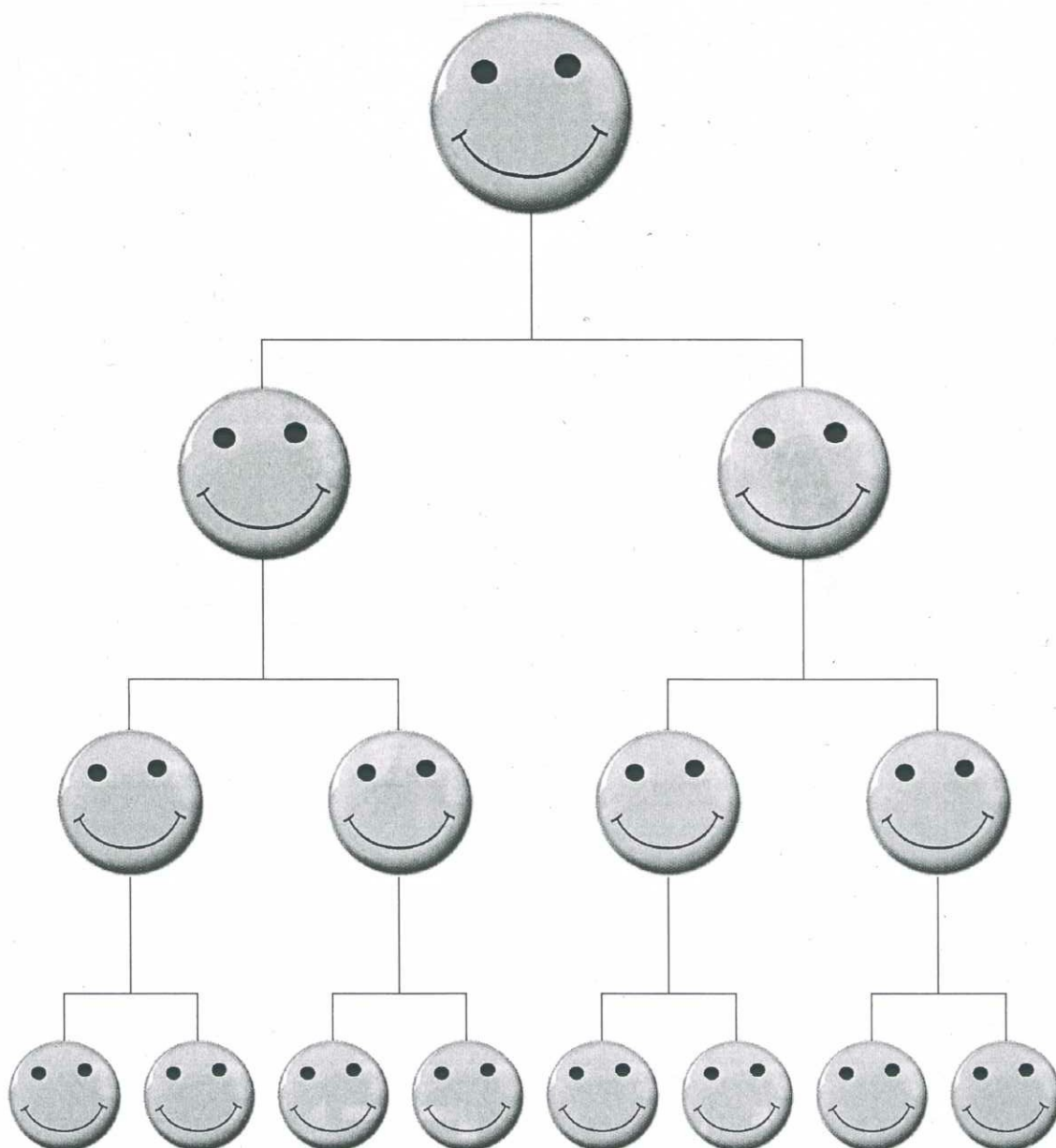
If you're coming up one short, you're probably not counting the rare \$1 coin, an option that mathematicians cheer or sneer at depending on their definition of "change." (*Webster's New World Dictionary* defines the term as "coins or bills whose total value equals a single larger coin or bill." Fans of this definition prefer a total of 292.) The long list of ways to break a buck includes 100 pennies; two quarters and five dimes; and one dime, nine nickels, and 45 pennies. And the number of combos climbs from there. Five dollars? More than 100,000 combinations. Ten dollars? North of 3 million. And if you want to count the ways to break \$100, you'd better keep a calculator handy—one that can count to 9.8 trillion.

Click This
For more clean
breaks, go to
spiritmag.com
and click
Change.

Penny Wise
A Benjamin breaks
into trillions of
possible combos.



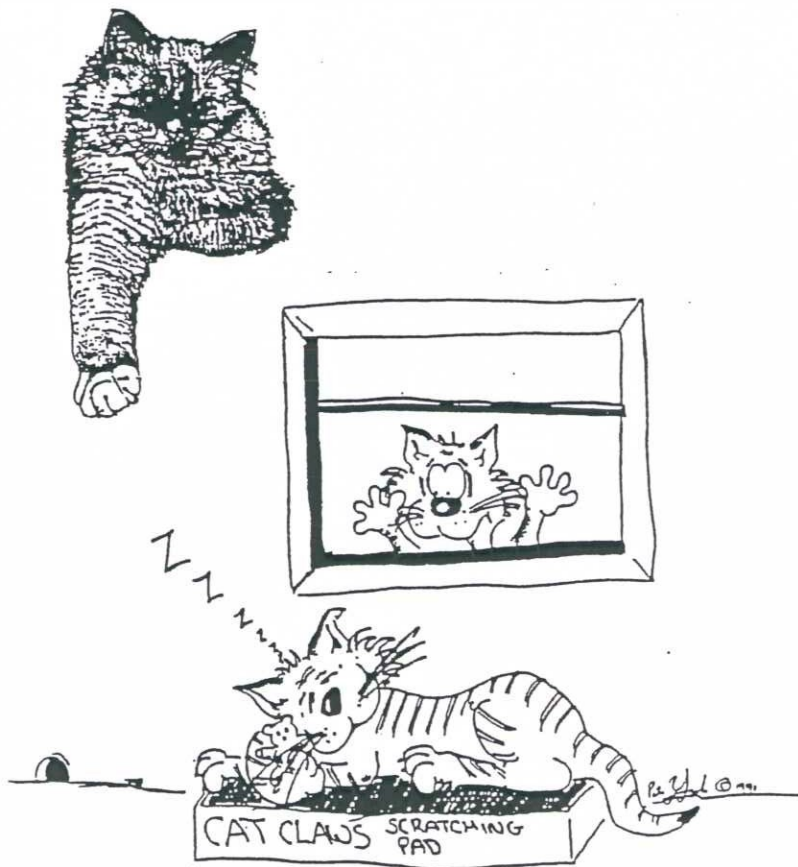
Extend the *Smiley Face* pattern by drawing the next two rows of smiley faces. Describe the functional relationship depicted in the picture. Use your functional relationship to find the number of smiley faces on the twentieth row.



Describe one of the functional relationships in the *Cat Claws Scratching Pad* ad graphically and in words.

What is the domain of your function?

What is the range of your function?



*The Purrfect Gift for Your Cat
--and for Anyone with Cats*

Cat Claws Scratching Pad

1 pad \$7.95,

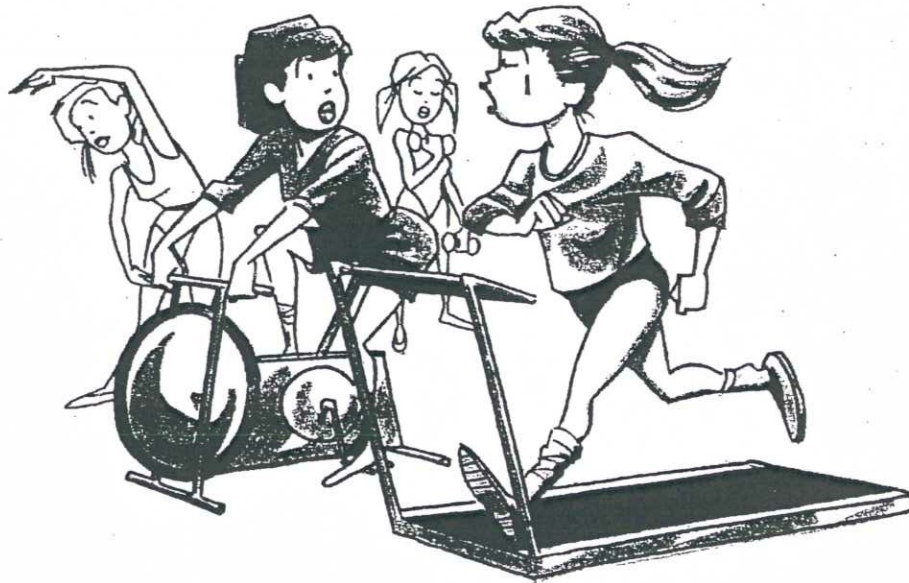
2 to 5 pads \$6.75 ea.,

6 to 11 pads \$6.00 ea.,

12 or more

\$5.00 ea.

Draw a weight-time graph to explain mathematically what she is saying. Label your axes.



"I haven't lost any weight, but I've slowed my rate of increase."

Ask Marilyn

In a certain multiple-choice test, one question was illegible, but the following choice of answers was clearly printed. Which must be the right answer?

- 1) All of the below
- 2) None of the below
- 3) All of the above
- 4) One of the above
- 5) None of the above
- 6) None of the above

-Mark Johnson,
Spokane, Wash.

Construct an argument to support why 5 must be the correct answer.

Dear Ann Landers: I am a 47-year-old single mother. I own my home and car and consider myself intelligent and capable.

Here's the problem: I am in school to become a paralegal and must take algebra in order to get my degree. I will never use algebra in real life, nor is it a necessary component of being a paralegal. However, algebra is required in order for me to graduate.

I am terrible in math, Ann. I already have taken algebra once and failed. I am certain I will continue to fail, no matter how many times I take the class Can you help me? I don't know what to do anymore.

- The Dummy in San Antonio

Dear San Antonio: I too, wonder why higher-level math classes are required for people who will never use them. Talk to the algebra teacher and ask for his or her assistance. Also, please consider hiring a tutor. The results will be worth it.

This letter and response appeared in the Houston Chronicle right before Ann Landers' death.

Here's the counterpart for geometry to the question "When will I use algebra?" that Ann Landers received. This comes from Ask Marilyn.

We're writing because our geometry teacher told us that if we get published (hint, hint), he will give us extra credit. Our question is: When in our life are we going to use proofs?

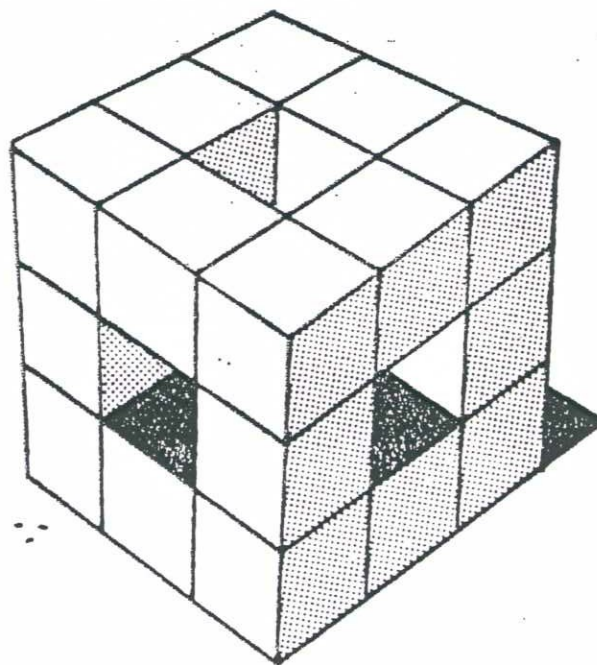
-Jen and Anne,
Kaysville, Utah

You will use them every day, I hope, without knowing it. Geometry is beautifully logical, and it teaches you how to think and prove things that are so, step by step. Proofs are excellent lessons in reasoning. Without, logic and reasoning, you are dependent on jumping to conclusions or - worse- having empty opinions.

KidSpot™

CUBE QUIZ

SOME OF THE SMALL CUBES THAT MAKE UP THE LARGE CUBE ARE MISSING. THE HOLES YOU SEE GO COMPLETELY THROUGH THE LARGE CUBE. HOW MANY SMALL CUBES ARE MISSING? HOW MANY ARE LEFT IN THE LARGE CUBE?



Dick Rogers

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Ask Marilyn

Lancelot is training for the annual velocipede race through his kingdom.

Yesterday, he rode 15 mph and covered the distance in 2 hours and 24 minutes. Today he cut his time by 24 minutes. How fast did he ride?

- Leo Tschirhart,
Ann Arbor, Mich.

Ask Marilyn

Here's a good math puzzle for you. Say that a 30-foot cable is suspended between the tops of two 20-foot poles on level ground. The lowest point on the cable is 5 feet above ground. What is the distance between the two poles?

- Warren Buckland,
Morganville, N. J.

Ask Marilyn

Bonnie and Clyde usually flip a coin to decide who's going to do the chores. One day, Clyde complains: He thinks he loses too often. So Bonnie says, "OK, this time you flip two coins, and I flip one. If you get more heads than I do, I'll clean the guns." Clyde likes Bonnie's display of generosity and says, "You've got a deal!" What are his chances?