

by Scott\_LaFee

## BRAIN SWEAT

Rearrange the letters of the following three words to form three new words that are all related: CARTELS, CRIMEAN, MICRONS.

## PATENTLY ABSURD

WHAT IS IT? - This is an aerial picture of the so-called Richat Structure, a geological formation in the Maur Adrar Desert in Mauritania, Africa. CNS Photo. SURELY YOU'RE JOKING - How many programmers does it take to change a light bulb? CNS Photo. PAVLOV'S BUGS - Researchers have shown that American cockroaches (*Periplaneta americana*) can be taught to salivate using not sound, but smell. CNS Photo. POETRY FOR SCIENTISTS - Ford did not invent the car, The Germans were quicker by far, But he found a way, To make hundreds a day, And that's how things got as they are. CNS Photo. Rear guard

U.S. Patent Number 4,151,613

The purpose of the "butt guard," invented in 1979, was as obvious as its name. Made of resilient, shock-absorbing plastic and foam, the guard secured around the waist and legs with adjustable straps. It was intended to cushion the inevitable mishaps of inexperienced skaters and skateboarders. Admittedly, it looked a bit like an armored diaper, but if you've ever fallen backside first onto hard concrete, you know that vanity verily goeth before the fall.

SURELY YOU'RE JOKING

Q: How many programmers does it take to change a light bulb?

A: Can't be done. It's a hardware problem.

BRAIN SWEAT ANSWER

SCARLET, CARMINE, CRIMSON are all shades of red.

'TRUE FACTS'

If the Earth were the size of a period, it would be separated from the moon by the thickness of one finger (0.63 inch), from the sun by the length of a limousine (20 feet), from the nearest star by the length of the Ohio River (930 miles), and from the center of the Milky Way by 200 times the equatorial circumference of the full-sized Earth (200 x 24,901 miles = 4,980,200 miles).

VERBATIM

"There is always a chance we will be hit by a lethal bubble, which would come without warning. But since we'll just evaporate in an instant and there's nothing we can do to stop it, there's really no use in worrying."

- Cosmologist Alex Vilenkin, Tufts University

## PAVLOV'S BUGS

More than a century ago, the Russian physiologist Ivan Pavlov showed that dogs could be conditioned to salivate upon hearing a particular sound, even if no food was present.

You might not think that's a particularly notable skill, but until recently only one other organism was known to be a conditional salivator: humans. This kind of biological exclusivity is nothing to spit at.

Now there's a third member of the club - the cockroach. Researchers at Tokyo University have shown that American cockroaches (*Periplaneta americana*) can be taught to salivate using not sound, but smell.

Makoto Mizunami and Hidehiro Watanabe placed drops of sugar syrup on the mouths of American cockroaches while stimulating their antennae with peppermint or other scents.

After repeated exposures, the cockroaches were presented with a scent alone. The researchers found the insects salivated when the scent was one associated with the sugar syrup.

The research has a practical application: It should help scientists better understand the neuronal basis of learning because 1) cockroach brains are simple; 2) the bugs are easy to work with; and 3) they demand only a little sugar syrup in return.

And sometimes not even that.

## PRIME NUMBERS

9,000,000- Dollars earned by Dennis Hope, an entrepreneur who has been selling land parcels on the moon for \$19.95 an acre since 1980

4,250,000 - Number of people who have bought lunar land from Hope

95 - Number of planetary bodies that Hope says he owns

7,000,000,000 - Estimated acreage on those planetary bodies

100,000,000,000 - Estimated value, in dollars, of that acreage, according to Hope

0 - Chances that Hope's real estate claims would ever hold up in court if challenged, according to space law experts.

Source: Discover

## POETRY FOR SCIENTISTS

Ford did not invent the car,

The Germans were quicker by far,

But he found a way,

To make hundreds a day,

And that's how things got as they are.

## WHERE IN THE WORLD, ANSWER?

The so-called Richat Structure is a geological formation in the Maur Adrar Desert in Mauritania, Africa. Though it resembles an impact crater, the Richat Structure formed when a volcanic dome hardened and gradually eroded, exposing the onionlike layers of rock.

Copley News Service

*Eureka! Daily discoveries for the scientifically bent by Scott\_LaFee*