

TEST of your BRAIN ☺

In mathematics it's important to keep mentally alert. The following test has been circulated as an amusing example of how a lack of alertness can lead to impulsive answers that are obviously false or confusion over something that is really very simple. There are page breaks below so you don't see the answers until you have made your own.....OK, relax, clear your mind and ... begin.

- 1.** What do you put into a toaster?

The answer is "bread," not "toast."

2. Say "silk" five times. Now spell "silk." What do cows drink?

Answer: Cows drink water, not "milk." .

3. If a red house is made from red bricks and a blue house is made from blue bricks and a pink house is made from pink bricks and a black house is made from black bricks, what is a greenhouse made from?

Answer: Greenhouses are made from glass, not "green bricks."

4. Imagine that it is twenty years ago and a plane is flying at 20,000 feet over Germany. If you will recall, Germany at the time was politically divided into West Germany and East Germany ... Anyway, during the flight, TWO of the engines fail. The pilot, realizing that the last remaining engine is also failing, decides on a crash landing procedure. Unfortunately the engine fails before he has time and the plane crashes smack in the middle of "no man' s land" between East Germany and West Germany. Where would you bury the survivors, in East Germany or West Germany or in "no man' s land?"

Answer: You don' t, of course, bury any of the survivors.

5. If the hour hand on a clock moves $\frac{1}{60}$ of a degree every minute then how many degrees will the hour hand move in one hour?

Answer: One degree, not "360 degrees" or anything else. We now proceed to the final question.

6. Answer this question without using a calculator — You are driving a bus from London to Milford Haven in Wales. In London, 17 people get on the bus. In Reading, six people get off the bus and nine people get on. In Swindon, two people get off and four get on. In Cardiff, 11 people get off and 16 people get on. In Swansea, three people get off and five people get on. In Carmarthen, six people get off and three get on. You then arrive at Milford Haven. What was the name of the bus driver?

Answer: Since the very first line says that you' re driving the bus, the correct answer is your own name.

☺ You can now pass this along to all your "friends" and see how well they do!

Postscript: The reason for including this lighthearted set of questions is to illustrate the need to stay focused when working out a mathematical proof. In particular, it is important to look carefully for information in the statement of a problem that is — or may be — misleading or irrelevant. It is also important to look critically at proofs that seem to be so simple that they do not require much serious thought, particularly when the conclusion seems relatively sophisticated; if something looks too good to be true, it could very well be too good to be true.