Magnificently Medium BrainStarters

Logic Activities to Jumpstart Your Day

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1. A scientist has developed a type of pumpkin that doubles in weight every day until it reaches 128 pounds. But once it reaches this weight, the pumpkin splits open and stops growing.

Out of curiosity, Jack decided to visit the scientist to see in person this new type of pumpkin. While he was there, Jack was told that after the pumpkin reaches a weight of one pound, it will double in weight every day. He also learned that the pumpkin currently growing in the lab was just weighed at one pound today (day one). Jack stopped and thought for a moment before he said, "I know when this pumpkin will split open." The scientist would love to know this information so that he could pick the pumpkin just before it split and sell it to a store.
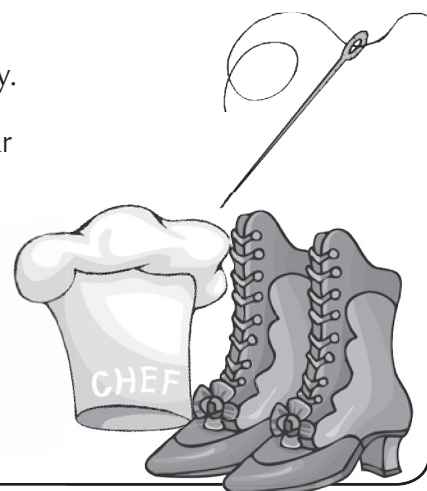
When should the scientist pick his pumpkin?

2. There is a total of 28 passengers on the three school buses parked in front of the school. The first bus has twice as many people on it than the second bus. The first bus also has two more passengers than the third bus.

How many people are on each bus?

3. Mr. Baker, Mr. Shoemaker, and Mr. Tailor met for lunch one day. Mr. Baker said to the shoemaker, "Isn't it strange that we all bear the name of a profession, but none of us is in the profession for which we are named?"

What is each man's profession?

10. The chief of police was called in to handle a very unusual case. A young girl had been kidnapped, but instead of a ransom note, the kidnapper left a coded message:

3f 645 c1n t2ll m2 wh1t th3s s16s, 3 w3ll l2t th2 k3d g4!

Teachers: Write this message on the board for the students to see.

Decipher the code and help rescue the young girl from her kidnapper.

11. Brian's family reunion was very crowded when he arrived that afternoon. The first person that he ran into was Sam. Sam then introduced Brian to Carl.

If Sam's father was Carl's son, what is the relationship between Sam's son and Carl?

12. There is a three-digit number in which the sum of the digits is 14. The ones digit is one-half of the hundreds digit, and the tens digits is one-half of the ones digit.

What is the number?

537

22. There are six bowls sitting in a line on the counter. The first three bowls are filled with cereal, and the last three bowls are empty.

By moving only one bowl, how would you arrange them so that the full and empty bowls alternate?

23. Christina takes the elevator down every morning from her home on the eleventh floor of the apartment building. Every afternoon when she comes home, if she is alone, she rides the elevator up to the eighth floor and walks the rest of the way to the eleventh floor. If there are other people with her in the elevator, she will ride it all the way to the eleventh floor. **Why is this?**

24. Determine the pattern in each of the following lists:

a) **Colorado, Oregon, North Carolina, Arkansas, South Dakota**

b) **Ohio, Idaho, Hawaii, Alabama, Colorado**

c) **Minnesota, Michigan, Massachusetts, Maryland, Maine**

25. Typically, yesterday came before today, and today will be followed by tomorrow.

In what place does yesterday come after today and tomorrow?

26. There are only two people in the very small town of Teenyville that can cut people's hair – Mrs. Lovelylocks and Mr. Cleancut. Mrs. Lovelylocks' own hair is cut beautifully and is always perfectly styled. Her salon is very clean, and not a single strand of hair can be found on the floor. Mr. Cleancut, on the other hand, has a terrible haircut – it is many different lengths, and he even has chunks of hair missing! His small shop always has bits of hair on the floor.

Andy is new in town and wants to get a haircut. To which stylist should he go?

27. Seven students are playing tennis in gym class. If each student plays one game with each of the other students, **how many total games will be played?**