

**An Exercise in "Logical" Thinking**

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Pts: 50

Write your name(s): \_\_\_\_\_

\_\_\_\_\_

Answer the following the *best* you can. No help will be given! (1 point each)

- 1) If a doctor gave you three pills and told you to take one every half hour starting at noon, at what time did you take the last pill? 1) \_\_\_\_\_
- 2) If you dig, with a square edged shovel, a hole one foot wide, two feet deep, and three feet long, how much dirt will there be in the hole? (Use correct units.) 2) \_\_\_\_\_
- 3) A belt and a pin cost a total of \$1.40. If the belt costs \$1.00 more than the pin, how much did the pin cost? 3) \_\_\_\_\_
- 4) A boat lies at anchor in a harbor. The boat has a ladder over the side just touching the water. The distance between each rung on the ladder is one foot and the tide rises at the rate of six inches per hour. At the end of three hours, how many rungs will be covered?  
Note: The bottom rung is just touching the water. 4) \_\_\_\_\_
- 5) How many birthdays does the average man have? 5) \_\_\_\_\_
- 6) How many times can you take 5 away from 25? (Note: The answer is neither 0 nor infinity.) 6) \_\_\_\_\_
- 7) If it takes two minutes to hard-boil one egg, then how long will it take to hard-boil five eggs? 7) \_\_\_\_\_
- 8) Geography question: Before Mt. Everest was discovered, what was the highest mountain on earth? 8) \_\_\_\_\_
- 9) In a certain city, 5% of all the people have unlisted phone numbers. If you select 100 names at random from the directory, which contains 100,000 names, how many people, selected from the 100, will have unlisted phone numbers? 9) \_\_\_\_\_
- 10) Some months have 30 days and some have 31 days. How many months have 28? 10) \_\_\_\_\_
- 11) On a triangular lot a man is building a square house. Each side has four rectangular windows with a southern exposure. A bear comes wandering by and circles the house 3 times. What color is the bear? 11) \_\_\_\_\_
- 12) How far can a dog run into the woods? 12) \_\_\_\_\_
- 13) I have in my hands two U.S. coins totaling 55 cents. One is *not* a nickel. What are the two coins? 13) \_\_\_\_\_
- 14) A farmer had 17 sheep. All but nine died. How many did he have left? 14) \_\_\_\_\_

**An Exercise in "Logical" Thinking continued**

- 15) Chris is staying overnight at a motel and needs to wake up at 9:00 A.M. the next morning. Chris brings a wind up alarm clock, winds it, sets it to the correct time and sets the alarm to 9:00. Chris goes to bed at exactly 8:00 P.M. and wakes up when the alarm goes off. How many minutes of sleep did Chris get? 15) \_\_\_\_\_
- 16) Take two apples from three apples and what do you have? 16) \_\_\_\_\_
- 17) If you drove a bus with 43 people on board from Chicago and stopped at Pittsburgh to pick up 7 more people and drop off 5, and then at Cleveland to pick up 4 more people and drop off 8, and arrive at Philadelphia 20 hours later. How old is the bus driver? 17) \_\_\_\_\_
- 18) How many 3 cent stamps are there in a dozen? 18) \_\_\_\_\_
- 19) In a grocery store line there is person standing in front of 2 others, there is another person standing in between 2 others, and there is third person standing behind 2 others. How many people (minimum) are in line? 19) \_\_\_\_\_
- 20) An archaeologist claimed he found some coins dated 40 B.C. . Are they gold or silver coins? Why?  
20) \_\_\_\_\_
- 21) Which of the following is/are correct to say? 21) \_\_\_\_\_  
a) "The yolks is white."            c) "The yolks are white."  
b) "The yolk are white."            d) "The yolk is white."
- 22) The "EL" train in downtown Chicago is going west and the wind is blowing *from* the lake. Which way is the smoke from the engine blowing? 22) \_\_\_\_\_
- 23) Lead weighs more than gold but is not as smooth. Which would be the heavier material to haul over a rough road, a ton of lead or a ton of gold? 23) \_\_\_\_\_
- 24) You walk into a room at the zoo that has three monkeys in it. One monkey has a banana, one has a stick, and one has nothing. Which primate in the room is the smartest? 24) \_\_\_\_\_
- 25) The big hand on an antique clock is pointing straight down and the little hand is 3/4 of the way clockwise around starting at 12:00. What time does the clock say? 25) \_\_\_\_\_
- 26) You are stranded in a snowstorm and you come across a deserted, pitch black cabin. You walk into the cabin with only one match in your hand. Inside there are three objects: a kettle, a kerosene lantern, and a candle. Which object do you light first? 26) \_\_\_\_\_
- 27) If it takes 21 days for 21 chickens to lay 21 eggs, how many days will it take 14 chickens to lay 14 eggs? 27) \_\_\_\_\_

**An Exercise in "Logical" Thinking continued**

- 28) A squirrel has 6 ears of corn hidden in a building. It wants to move the ears to its hole in a tree. If only 3 ears can come out of the building at a time how many round trips will it take the squirrel to move the corn? 28) \_\_\_\_\_
- 29) There are two baby chicks just hatched standing next to a rooster. One chick is solid yellow and the other one is yellow with spots of red. Which chick came from the egg the rooster laid if the rooster is solid red in color? 29) \_\_\_\_\_
- 30) Train #1 leaves Chicago towards New York at the same time train #2 on a parallel track leaves New York for Chicago. The train leaving Chicago is traveling twice as fast as the other train. When they meet which train will be closest to Chicago? 30) \_\_\_\_\_
- 31) England celebrates Christmas on Dec. 23. They celebrate New Years on Jan. 1. Does England have a fourth of July? (yes or no) 31) \_\_\_\_\_
- 32) A solid wall of a building made entirely of all bricks, with no windows and no doors, is to be constructed. How many bricks does it take to complete the wall if the wall is 20 feet by 40 feet and each brick face (front side) is 2 inches by 6 inches. (Note: Bricks are to be laid horizontally.) 32) \_\_\_\_\_
- 33) How many sides does a circle have? (Note: None and infinite are wrong answers.) 33) \_\_\_\_\_
- 34) Is an old hundred dollar bill better than a new one? a) yes or no b) explain your answer 34a) \_\_\_\_\_  
34b) \_\_\_\_\_
- 35) A bean stalk doubled its height every day. This was a magical bean stalk that grew from the magical beans that Jack planted, which he got from selling his mother's cow. The bean stalk reached its full height in 100 days. How many days did it take to reach half its height? 35) \_\_\_\_\_
- 36) Why can a person living in Wheaton or Warrenville not be buried west of the Mississippi River?  
36) \_\_\_\_\_
- 37) If a farmer has 5 haystacks in one field and 4 haystacks in the other field, how many haystacks would he have if he combined them all in the center field? 37) \_\_\_\_\_
- 38) How many more seconds are in a month of 30 days as 31 days? 38) \_\_\_\_\_
- 39) In what year did Christmas Day and New Year's Day fall in the same year? 39) \_\_\_\_\_
- 40) A family, whose last name is Greek, has five sons named Alpha, Beta, Delta, Gamma, and Epsilon. Each of these boys has one sister. How many children are there in the Greek family? 40) \_\_\_\_\_

41) In 1980 a man married his widow's sister who had \$1,000,000 in the bank. In 1990 they got a divorce and as part of the settlement the man got \$500,000 (there was no prenuptial paper). Is this a fair amount of money for the man to receive? Explain your answer.

41) \_\_\_\_\_

42) I am going to put pennies, one at a time, into an empty box. The base of the box is 3 inches square with a height of 2 inches. A penny has a diameter of 0.75 inches and 18 pennies stacked to be 1 inch in height. How many pennies, in neat stacks, can I put in the empty box? 42) \_\_\_\_\_

43) There is three errors in this sentence. What are they? 43a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_

44) Chris a butcher has a twin brother who is exactly the same height. They are both 5'10" and the brother weighs 180 pound. What does Chris weigh? 44) \_\_\_\_\_

45) If 100 comes after 10, and 1000 comes after 100, and 10000 comes after 1000 then what comes after 10000? 45) \_\_\_\_\_

46) Four penguins would satisfy a polar bear's appetite for 12 hours. A polar bear has a territory of 10 square miles. There are 1000 penguins per square mile. What percent of penguins (number eaten divided 1000 times 100) in the 10 square miles will a wild polar bear eat? 46) \_\_\_\_\_

47) There are many words in mathematics that are hard to pronounce correctly such as: abscissa, asymptote, logarithm, rhombus, and polynomial. From the words in this problem, there is one word which is most often pronounced incorrectly. What is it? 47) \_\_\_\_\_

48) What relationship to the father is a father's only son's brother's uncle's wife's daughter's brother's father's son? 48) \_\_\_\_\_  
a) the father's nephew                      e) the father himself  
b) the father's grandfather                f) the father's son  
c) the father's father                        g) the father's grandson  
d) the father's uncle                        h) the father's cousin

49) In a pasture is a papa bull and its related baby bull. One of the members of the family is missing? Who is it? 49) \_\_\_\_\_

50) Mary's mother has a tendency to name her four children after U.S. coins. Her first child was named Quartaro (for quarters), the second child was Dimetrius (for dimes), the third was Nicole (for nickels), and the last child was named what?

50) \_\_\_\_\_