

Logic 4

(Due February 7, 2014)

Name _____

Period _____

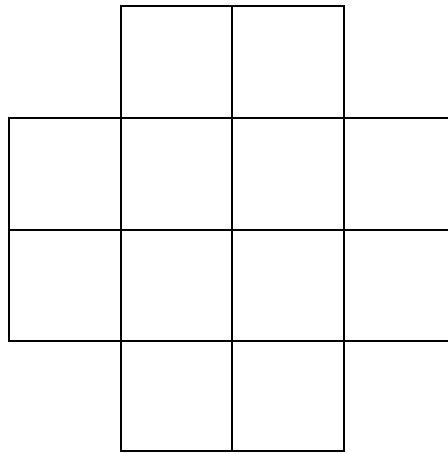
Logic 1 Time = _____

Fractional Part shaded _____

Logic 2 Time = _____

Q= _____ D= _____ N= _____ P= _____

Logic 3 Time = _____



Logic 4 Time = _____

$$\square + \square - \square + \square - \square = 100$$

Logic 5 Time = _____

1st move : _____

2nd move : _____

3rd move : _____

4th move : _____

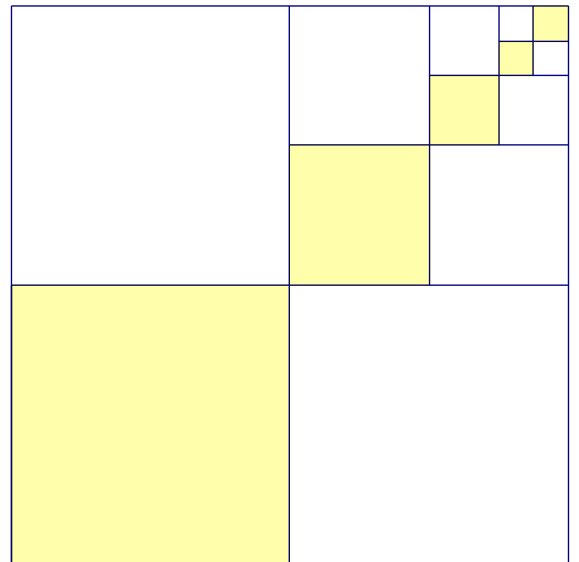
5th move : _____

Logic 6 Time = _____

Membership number was _____

Logic 1: Time = _____

What fractional part of the large square is shaded? _____



Logic 2: Time = _____

“Hickam’s Everything is under a \$1” store sells many items which range in price from 1¢ to 99¢. To give change I only have quarters, dimes, nickels, and pennies. If you come in and buy just one item, what is the least amount of coins I can have on hand to give you the correct change back. Remember that I do not know which item you will buy, which means I don’t know how much your one item will cost. Thus, I must be prepared to give change back for every possible price under \$1.

Quarters you must have = _____

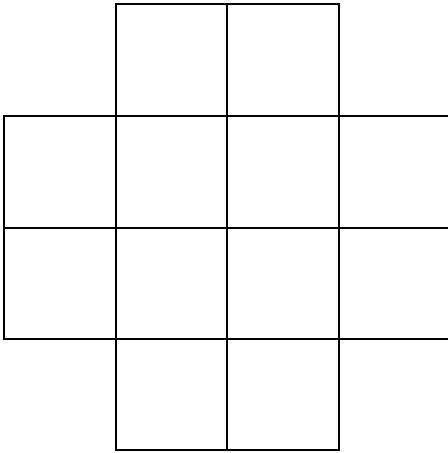
Dimes you must have = _____

Nickels you must have = _____

Pennies you must have = _____

Logic 3: Time = _____

Fill in the blanks with each of the numbers 1-12 such that no two consecutive numbers are adjacent to one another either vertically, horizontally, or diagonally.



Logic 4: Time = _____

Use the digits 1-9 in numerical order to make the statement true.

Example: Use digits 1-4 in order to make 19.

$$\boxed{12} + \boxed{3} + \boxed{4} = 19$$

Notice how the digits are in order from 1 to 4.

$$\boxed{} + \boxed{} - \boxed{} + \boxed{} - \boxed{} = 100$$

Digits must be in order from 1 to 9.

Logic 5: Time = _____

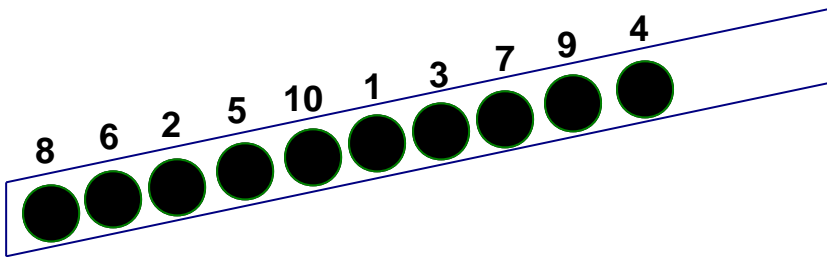
Here is a problem one of my college professors gave me back in my college years.

Ten cartons are arranged on a tilted roller track, as shown below. The mechanical arm used to sort them into numerical order from left to right can move up to three adjacent cartons at a time to the right-hand top of the track. The cartons roll down to fill the gap. Sort the cartons in five moves.

Examples (further explanation)

If you used the mechanical arm to lift up cartons 6 and 2 and moved them to the right-hand top of the track, the new order of the cartons would become 8-5-10-1-3-7-9-4-6-2.

If instead you used the mechanical arm to lift up cartons 3-7-9 and moved them to the right-hand top of the track, the new order would become 8-6-2-5-10-1-4-3-7-9.



1st move is _____

2nd move is _____

3rd move is _____

4th move is _____

5th move is _____

Logic 6: Time = _____

Mr. Carrow received a membership card to Chucky Cheeses. The lifetime membership card showed a five-digit number, of which each digit was different. When he turned the card upside down, he found the resulting number was 7920 more than the original one. What was his membership number? (Common math problem, just with my own twist)

Membership number was _____.