

# Lotto Worksheet 1 Key

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Names \_\_\_\_\_

I. The Illinois LOTTO game consists of picking 6 balls numbered 1 through 52. The order that they are picked does not matter.

1) How many different combinations of 6 numbers are possible?

1) 20,358,520

52C6

2) The Illinois LOTTO game used to use 48 balls. How many *more* combinations are there for 52 balls as to 48 balls?

52C6 - 48C6

2) 8087008

3) Someone suggested that when the prize amount reaches a large amount like \$80 million that they buy a ticket with each combination of numbers and be a guaranteed winner. If it takes one second to process each of the combinations from #1) above then how many days will it take to buy tickets with each possible combination? (Round to nearest day.)

20358520/60/60/24

3) 236 days

4) If each of the combinations from #1) above represents a penny and it takes 18 pennies to stack to be 1 inch then how many miles will this answer be? (Round to the nearest tenth of a mile.)

20358520/18/12/5280

4) 17.9 miles

II. 1) Assuming six balls are needed to win the Virginia lottery, how many total balls are there in that lottery? (Note: Read the article below carefully.)

44C6 = 7,059,052

1) 44

## Virginia OK's Australian Lottery Win

From Chicago Tribune wires

RICHMOND, Va.-An Australian gambling syndicate will carry away a \$27 million lottery jackpot from the State of Virginia after buying about 5.5 million \$1 tickets, officials said Tuesday.

Lottery director Kenneth Thorson said the ticket is valid, despite questions about whether the enormous Australian purchase violated lottery rules.

In February, agents for the International Lotto Fund of Melbourne, Australia, bought tickets by the million-including the winner-but time ran out before they could corner all 7 million (approximate) possible combinations.

Thorson said the Australians would be given the benefit of any doubt that the ticket was bought in accordance with state lottery regulations.

Rules require that tickets be sold only at a location listed on each retailers' license, but many of the Australian tickets were paid for by cashiers' checks at the corporate headquarters of the Farm Fresh grocery store chain.

The \$1 tickets were later issued at the retail outlets.

"It was impossible for the lottery, or the claimants, to prove positively how the winning ticket was purchased," Thorson said.

The winning ticket nets \$27,036,142 and the prize will be paid out over 20 years, beginning with \$1,348,142 before taxes in the first year and then 19 checks of \$1,352,000. There are 2,500 investors in the Australian syndicate.

Thorson said the first check should be issued next week once officials verify the identity of the claimants and determine the amount of income tax.

The state Lottery Board adopted emergency regulations of March 2 to discourage block ticket sales but stopped short of limiting the number of tickets a lottery player can buy.

No regulations existed on block sales when the ticket was bought.