

Checkmate!

An activity of "Singaporean achieves chess grandmaster title"

Read "Singaporean achieves chess grandmaster title" (Story 16, *What's Up* April 2020) to learn about a Singaporean who has achieved a coveted world title.

8	a8							
7								
6							g6	
5			c5					
4				e4				
3	a3							
2	a2	b2	c2					
1	a1	b1	c1	d1				
	a	b	c	d	e	f	g	h

Chess is a board game played on a chessboard by two players. Each player starts with 16 (white or black) pieces: eight pawns, two knights, two bishops, two rooks, one king, and a queen. The player with the white pieces makes the first move followed by the player with the black pieces and so on. There are rules about how the pieces can move.

Answer the questions by using this chessboard to help you. Show your calculations.

QUESTIONS

- The chequered table above represents a chessboard. Without counting all the individual boxes, find the total number of boxes on this chessboard.
- Algebraic notation** is used to represent the position of pieces on a chessboard. This is done by uniquely identifying each box on the chessboard with a **coordinate pair**. A coordinate pair consists of a "letter and a numeral" as shown for some boxes e.g. a1, a2, a8, b1, b2, and so on.
 - Using the letters and the numerals alongside the table, label all the boxes in the above chessboard.
 - Calculate the probability that a box chosen at random is black and has the letter "b" in its associated coordinate pair.

ANSWER: _____

- Algebraic notation** is also used to represent the moves made in a game of chess.

The **letter names** of the King, Queen, Bishop, Knight, and Rook chess pieces are K, Q, B, N, and R respectively. No letter is used to represent a Pawn.

The **algebraic notation** of chess moves consists of the *letter name of a white piece moved*, followed by the *coordinate pair of the box it was moved to*. This is followed by the *letter name of a black piece moved next* and the *coordinate pair of the box it was moved to*.

If "e4 e5, Nf3 Nc6 and Bb5 a6" are the **algebraic notations** of three moves in a game of chess, then the **word description** of e4 e5 is "a white pawn moved to e4 and a black pawn moved to e4". Similarly, write the word description for the other two moves Nf3 Nc6 and Bb5 a6.

ANSWER: _____

- A Bishop can move any number of boxes diagonally. If a Bishop was moved to b8 mark "x" on all the boxes where the Bishop could have been at the beginning of this move. (Without any other condition).
- In a game between international players, which mode of description of moves will be preferred: word description or algebraic notation? Give a reason for your answer.

ANSWER: _____