Maths Week/ Wiki Pāngarau 2025

Survivor Series/Kia Mōrehurehu

Day 5 Set B

For students

WHAT TO DO FOR STUDENTS

1 **You can work with one or two others. Teams can be different each day.**

2 **Do the tasks and write any working you did, along with your answers, in your maths book.**

3 **Your teacher will tell you how you can get the answers to the questions and/or have your work checked.**

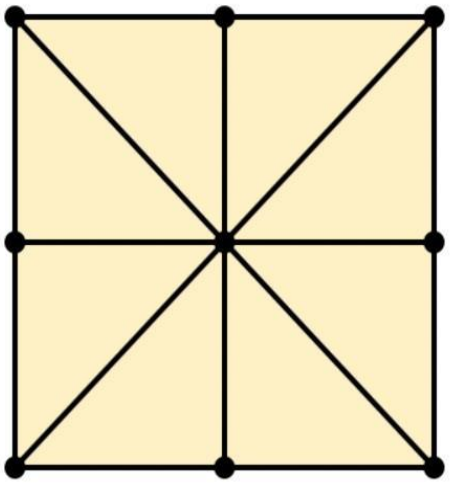
4 **When you have finished each day, your teacher will give you a word or words from a proverb. You could ask your teacher to explain what a proverb is.**

5 **At the end of the week, put the words together in the right order and you will be able to find the complete proverb! Your teacher may ask you to explain what the proverb means.**

6 **Good luck.**

THINKING STRATEGICALLY

Task 1 Three Men's Morris



You will think about and then play this game with a partner. You will need a 3 x 3 grid (your teacher will show you how to draw the grid or may give you a copy to work on) and two sets of three coloured counters (one colour for each player).

Instructions

- Decide who goes first for the first game, and take turns to start after that.
- Each player places their coloured counter on an empty dot.
- The winner is the first to create a line of three counters horizontally, vertically or diagonally.
- If all the dots are full, and no-one has made a line of three, then you can move one of your pieces to a new intersection, anywhere on the board.
- If both players have placed all three of their counters and there is no winner, play continues with each player moving

one of their pieces to a new intersection anywhere on the board.

(a) Who do you think will win - the player who goes first, the player who goes second, or will it not matter? Why?

Answer

(b) Play six games.

Complete the following table for the results of these games.

Player 1 (name):	**Player 2 (Name):**
Wins going first:	Wins going first:
Wins going second:	Wins going second:

(c) Collect results from your class and enter them in the following tally chart.

First Player Wins	**Second Player Wins**

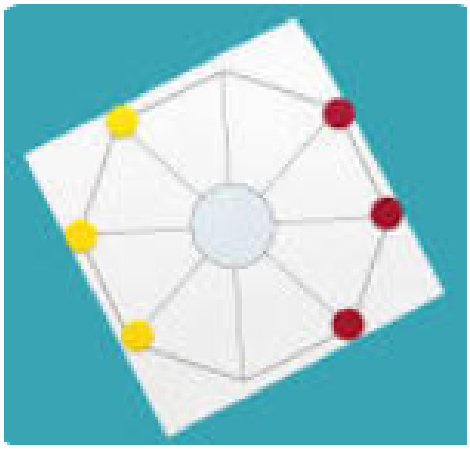
(d) Here are two questions to discuss as a class.

Question 1: Is there a pattern to the results?

Question 2: Is it better to be the first or second player? Why?

Task 2 Shisima

Shisima is a game for 2 players from Kenya. Like Three Men's Morris, the goal is to move your counters until you make a straight line of three. Shisima uses an octagonal board.



Instructions

- Decide who goes first and take turns to start after that.
- Each player has 3 counters. Place these on the three corners next to one another in the same half of the octagon.

- The other player places their pieces in the same way, on the other half of the octagon. This should leave 2 empty spaces on the corners that sperate each half.
- Each player takes turns moving one piece along a line to the next empty point.
- You may not jump a piece.
- The centre location – the Shisima - can be moved into (or out of).
- The winner is the first to create a straight line of three. One piece must therefore be in the Shisima, or it is not considered to be a line.
- At the end of a game, record the winner of each game and if the winner played first or second.
- The overall winner is the player who wins the most games.

Question 1

(a) Who do you think will win - the player who goes first, the player who goes second, or will it not matter?

Answer

(b) Play six games.

Complete the following table for the results of these games.

Player 1 (name):	**Player 2 (Name):**
Wins going first:	Wins going first:
Wins going second:	Wins going second:

(c) Looking at your results in (b), is the winner more likely to be the person who goes first, the person who goes second, or it doesn't matter?

Answer

(d) Here are two questions to discuss as a class.

Question 1: Is there a pattern to the results?

Question 2: Is it better to be the first or second player? Why?

Task 3 Student Rules

Choose the game you preferred. Modify it by changing one of the rules.

- Take turns for each player to make a new rule of their own.
- Both players need to agree to the rule.
- Play several games using each new rule, to see if it is 'fair'.

Share the new rules with your class, and finish by trialling any of the new rules you want to trial with a partner.