## Mongol Men \& Maidens

Long ago in central Asia there lived 4 beautiful Mongol maidens, and 4 strong Mongol men. Each morning the men woke with the intention of visiting their maidens: They dressed in bright colours, picked the longest grasses for a grass bouquet, saddled-up their horses and started out. But before they reached their maidens, they invariably ran into each other and began quarreling about whose maiden was the most beautiful.
"Qojin Beki has golden feet" said Arlsag
"Qojin Beki has wrinkled feet compared to Yusui" said Esunge
"Yasui's feet are indeed wrinkle-free, and as long as my horse’s snout." answered Arslag
"Bortei has feet as small as a lotus petal" said Guyuk as he galloped by
"Nar Nuteng has the most perfectly shaped feet of them all" yelled Korguz at Guyuk which made Guyuk stop to defend Bortei's reputation. "Nar Nuteng's feet are calloused and flat-ended" said Guyuk "Bortei's are beautifully pointy like an arrow-head in my quiver."


Esunge and his maiden Yasui. According to Esunge, Yasui was the most beautiful of all the maidens.
Soon the night would fall, and the men, still full of passion returned to their yurts and vowed to visit their maidens early the following morning. This carried on for years, with the maidens growing impatient. Finally, news of the hapless couples found its way to the court of the great Ogedei Khan far away. Ogedei laughed at the story of their rivalry and ordered a scout to investigate and bring back more information that he may show his great wisdom by settling the matter.



The outside and inside of a yurt.
After five years the scout returned with a map of the tents. "This is a matter to be solved by my cartographer." Ogedei pronounced. "I'm sure she can assign each square to a man so that they may ride back and forth between their yurt and their maidens' yurt (moving horizontally and diagonally) without leaving their assigned squares. This way they are sure never to encounter one another."


Colour each square yellow, green, blue, red or purple so that each pair of yurts are connected.
By the time the cartographer had solved the problem, Ogedei had has own solution. Can you find both solutions? If you get stuck, the cartographer's solution can be found here, but Ogedei is keeping his secret.

## Extensions:

- When a tougher situation arose with 5 Mogul Men and 5 Mogul Maidens, Ogedei found the map, but had trouble solving it.


Colour each square yellow, green, blue, red or purple so that each pair of yurts are connected.

- Create your own Mongol Men \& Mongol Maidens puzzle
- Create one with triangular graph paper.
- Create one that has one, unique answer, one with many answers, and one which is impossible.


## The Math in This Problem:

This math puzzle presents the challenge of creating various paths from one point to another. Students are given this brainteaser that involves figuring out unique solutions that will connect points representing Mongol Men and Mongol Maidens' tents. Through performing grid analysis, the desired routes necessary to join the corresponding colours will be achieved.

