

Ancient Greek Maths

WALT: calculate area and perimeter.

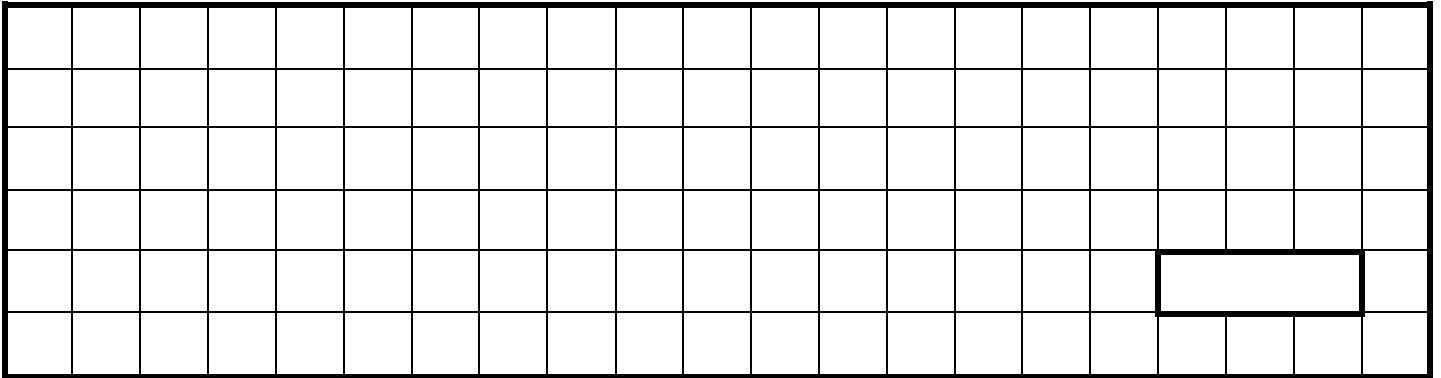
Fluency

Focus: converting miles to kilometres and vice versa.

275 miles = _____ km.

184km = _____ miles.

Diplomus lives in Sparta and needs to travel to the capital city of Athens 220km away. How many miles will Diplomus need to travel?



Task 1: Areaus and Perimeterus

Focus: Can shapes with the same area have different perimeters?



Around 700BC, whilst designing the Athenian central temple devoted to Zeus, Areaus and Perimeterus (ancient architects) discovered a problem. As the population of Athens was increased and areas of land to build upon reduced.

This concerned Areaus and Perimeterus because they had been trusted with the chance to build Greece's most expensive – most important – building. It would be a symbol of the empire so they could not afford to be wrong!

The Athenian parliament had voted and decided that the temple should be made up of **at least three** different buildings. However, they had also decided that the buildings **must** take up the **same area** of Athens as each other but have **different perimeters**.

Areaus could not believe it. "This is impossible!" he told Perimeterus, "You cannot have buildings with the same area but a different perimeter! Fools!"

Perimeterus silently disagreed. He was certain it was possible but it was clear he would need to convince Areaus.

Can you help Perimeterus convince Areaus that it can be done or is it really impossible?

Key Information:

- Design **THREE** buildings.
- The buildings **MUST** have the **same area** as each other.
- The building **MUST** have **different** perimeters to each other.