

Use the constraints below to help you to design areas for the Olympic village and Olympic stadium. Ensure that you have converted the units to metres.

- The pole vaulting athletes each need a room with a total perimeter of 14 m. However, one length must be at least 400 cm in order to fit the athlete's pole vault equipment in safely.
- The Olympic boxing area ring must have a perimeter of at least 1800 cm, with a maximum limit of 24 m. However, the length and width of the ring can not have a difference of more than 2 m.
- The gymnasts have rooms with six sides. Each side of the room is a different length and the total perimeter is a prime number under 20 000 cm.
- The rowers require a shed to keep their scull boats. The sculls are 1000 cm wide and 14 m long. The shed must have space to fit at least 8 boats side by side.
- The archery area needs to be on the outside of the Olympic park facing no accommodation. The area must be at least 0.15 km in length to give the archers enough space to practise.
- The kitchens are specially designed with 8 sides. One side is 50 000 mm and the total perimeter is 3000 cm.