

# Building a Slide Park

You will be building a Slide Park for family fun. All different aged children will be coming to the park so there will need to be slides of varying dimensions.

Specification of each slide:

The slide must form a right triangle with the right angle between the top of the ladder and the top of the slide.

## **For the 2-4 year olds:**

- The length of the slide must be 4 feet.
- The slide ladder must be 3 feet.
- What is the distance between the bottom of the ladder and the end of the slide?

## **For the 5-7 year olds:**

- The length of the slide must be 12 feet.
- The slide ladder must be 5 feet.
- What is the distance between the bottom of the ladder and the end of the slide?

## **For the 8-11 year olds:**

- The length of the slide must be 15 feet.
- The slide ladder must be 8 feet.
- What is the distance between the bottom of the ladder and the end of the slide?

## **For the 12-15 year olds: (3 slides)**

- The length of the slide must be 24 feet.
- The slide ladder must be 7 feet.
- What is the distance between the bottom of the ladder and the end of the slide?

**For the oldest group:**

- Add a loop at the bottom of the slide.
- The diameter of the loop is 4 feet.
- How much extra steel must be purchased to add this loop?

**Rubber mats**

Rubber mats will need to be placed under the slides. The rubber mats will need to extend 2 feet beyond the slide ladder, the end of the slide, and on both sides of the slide. The width of the slides is 2 1/2 feet for the 8-15 year olds and 2 feet for the 2-7 year olds. How many square feet of rubber mats will need to be purchased?

**Sand Box**

The park must also include a sand box for the youngest children. The sandbox should be 9x9. The sandbox needs to be filled with sand that is 1 foot deep. You receive a delivery of 5 cubic yards of sand. After filling the sandbox would you have sand left over or need more? How much would be left over or needed.

When designing the park make sure that the layout keeps the youngest children away from the oldest.

Layout the design for the park on graph paper.