

Solving Linear Inequalities by Collecting Like Terms

The security team at the amusement park would like to upgrade their security system. They want cameras that have a wider field of vision than the ones they are currently using.

The field of vision is the entire area the camera lens is able to capture from a fixed position.

The team has narrowed their choices to two different systems--one made by Rabbit Security and another manufactured by Deer Security.

The cameras offered by Rabbit Security have a maximum field of vision described by an inequality

The cameras made by Deer Security have a maximum field of vision described by a different inequality.

In each of these inequalities, the variable represents the camera's maximum field of vision, in degrees.

If the security team wants the cameras with the wider field of vision, which company should they choose?

Since the variable x represents each camera's maximum field of vision, the security team can use the properties of inequality, along with other concepts, to solve these inequalities.

Once they have these mathematical solutions, they can decide which company's cameras to purchase.

In this lesson you will learn how to apply the properties of inequality and inverse operations to solve inequalities. Some of the concepts you encounter will be familiar, since you have already learned how to apply them to equations.

Once you have mastered these techniques, you will be able to help the security team at the amusement park decide which camera system to buy.