Homework 4   Inequality Stories

You have seen that certain real-world situations can be described using inequalities. For example, in *How Many of Each Kind* each dozen plain cookies uses 1 pound of cookie dough and each dozen iced cookies uses 0.7 pounds of cookie dough, but the Woos have only 110 pounds of cookie dough. This limitation can be described by the inequality   , where P is the number of dozens of plan cookies and i is the number of dozens of iced cookies.

In this assignment, you will look further at the relationship between real-world situations and inequalities.

Part I: Stories to Inequalities

In each of the following questions, use variables to write an inequality that describes the situation.

1. You must be at least 48 inches tall to go on this ride.

2. Three or more people make a carpool.

3. No one under age 17 will be admitted without a parent or guardian.

4. A bus can hold no more than 60 adults and children combined.

5. A plane flying east will travel at least 75 mph slower.

6. To make a profit, the school drama club must sell tickets to at least 100 senior citizens and students

Part II: Inequalities to Stories

For each of these inequalities, make up a real-world situation that the inequality describes. Be sure to explain what your variables represent.

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