DOES A TRIANGLE EXIST?


Purpose: To determine if given 3 segments of various lengths whether or not a triangle can be formed

Materials: Straws, ruler, scissors, paper, pencil, worksheet
Activity: Given each student or each pair of students 10-12 ordinary "drinking" straws. Have the students measure the straw with the given lengths from the worksheet and cut the straws. Let the students know that one straw may make several segments. After the straws have been cut, have the students determine whether or not a triangle can be formed putting the 3 lengths together.

Extension: After completing the worksheet, ask the students to list other combinations that will make triangles.

Example: Cut the straw(s) so you have lengths 3 inches, 4 inches, and 5 inches (To save on straws, convert to centimeters, i.e. $3 \mathrm{~cm}, 4 \mathrm{~cm}$, and 5 cm )

STRAW


8 inches


Can a triangle be formed using the three given segment of $3 \mathrm{in}, 4 \mathrm{in}$, and 5 in ?

The answer is "yes, the three given lengths can form a triangle."


