

Date: _____

Group Names: _____

Cue Cards

State if it is **possible** or **impossible** for Cue to sketch 1 unique triangle or more than one triangle given each set of conditions on the **Cue Cards** below. Explain your reasoning.

Cue Card #1

Is it possible to program Cue to sketch an isosceles triangle with only one side measuring 40 cm?

Cue Card #2

Is it possible to program Cue to sketch a right triangle with one side measuring 40 cm?

Cue Card #3

Is it possible to program Cue to sketch an isosceles triangle with two sides measuring 40 cm?

Cue Card #4

Is it possible to program Cue to sketch a right triangle with sides measuring 20, 30, and 40 cm?

Cue Card #5

Is it possible to program Cue to sketch a right triangle with sides measuring 30, 40, and 50 cm?

Cue Card #6

Is it possible to program Cue to sketch a right triangle with angles measuring 30° , 60° , and 90° ?

Cue Card #7

Is it possible to program Cue to sketch an isosceles triangle with two angles measuring 30° , 40° and 120° ?

Cue Card #8

Is it possible to program Cue to sketch a triangle with two of the angles measuring 40° and 110° ?



Cue Card #9

Is it possible to program Cue to sketch a right triangle with two congruent sides measuring 30 cm and a third side measuring 60 cm?

Cue Card #10

Is it possible to program Cue to sketch an equilateral triangle with each angle measuring 60° ?

Cue Card #11

Is it possible to program Cue to sketch a triangle with sides measuring 30 cm, 30 cm, and 30 cm?

Cue Card #12

Is it possible to program Cue to sketch an isosceles triangle with two sides measuring 40 cm and one angle measuring 60° ?

Cue Card Solutions

Cue Card #1

Is it possible to program Cue to sketch an isosceles triangle with only one side measuring 40 cm?

Yes, it is possible to sketch one or more triangles that meet this condition, but they will have different angles.

Cue Card #2

Is it possible to program Cue to sketch a right triangle with one side measuring 40 cm?

Yes, it is possible to sketch one or more right triangles with one side measuring 40 cm.

Cue Card #3

Is it possible to program Cue to sketch an isosceles triangle with two sides measuring 40 cm?

Yes, it is possible to sketch more than one triangle with these conditions.

Cue Card #4

Is it possible to program Cue to sketch a right triangle with sides measuring 20, 30, and 40 cm?

No, it is not possible, because two of the sides will be either too long or too short.

Cue Card #5

Is it possible to program Cue to sketch a right triangle with sides measuring 30, 40, and 50 cm?

Yes, it is possible to sketch one unique triangle with these conditions

Cue Card #6

Is it possible to program Cue to sketch a right triangle with angles measuring 30° , 60° , and 90° ?

Yes, it is possible to sketch more than one triangle with these measurements. The lengths of two of the sides can change, but the angles will stay the same.

Cue Card #7

Is it possible to program Cue to sketch an isosceles triangle with two angles measuring 30° , 40° and 120° ?

No, it is not possible, as the three angles would add up to 190° . There are 180° in a triangle.

Cue Card #8

Is it possible to program Cue to sketch a triangle with two of the angles measuring 40° and 110° ?

Yes, it is possible to sketch a triangle with these two angles.

Cue Card #9

Is it possible to program Cue to sketch a right triangle with two congruent sides measuring 30 cm and a third side measuring 60 cm?

No, it is not possible because the third side would either be too long or too short.

Cue Card #10

Is it possible to program Cue to sketch an equilateral triangle with each angle measuring 60° ?

Yes, these conditions form a unique triangle.

Cue Card #11

Is it possible to program Cue to sketch a triangle with sides measuring 30 cm, 30 cm, and 30 cm?

Yes, these conditions form an equilateral triangle.

Cue Card #12

Is it possible to program Cue to sketch an isosceles triangle with two sides measuring 40 cm and one angle measuring 60° ?

No, it is not possible to make an isosceles triangle under these conditions. Only an equilateral triangle could be formed.