

Names: _____

Coaching Cue Worksheet

Directions: You will coach Cue to compete in both speed skating and figure skating competitions at the winter Olympics! In order to help increase Cue's chances of winning gold, use tables or any other strategy to solve the challenges below. Then program Cue to check your results.

To get a baseline ratio for distance to time, program Cue to move forward 20 centimeters at x -speed and time how long it takes Cue to do this. Record these values in the box below.

Baseline ratio: _____ cm / _____ seconds

Challenges 1 and 2: Cue the Speed Skater

Using the ratio you recorded above to solve Challenges 1 and 2.

Challenge #1: According to Cue's skateometer, Cue has skated **120 centimeters** during this morning's practice. How many **seconds** did it take for Cue to cover 120 cm at the rate of _____ **cm** / _____ **seconds**?

Challenge #2: This morning's practice is not over! You ask Cue to skate for another 5 minutes. What is the **distance in cm** that Cue will cover in 5 minutes at the rate of _____ **cm** / _____ **seconds**? (Hint: Begin by converting minutes to seconds.)

Challenges 3 and 4: Cue the Figure Skater

You will program Cue to dance in two figure skating routines. In the challenges below, use the formula **distance = rate x time**.

Challenge #3: Song #1 is 80 seconds long. If Cue travels 20 centimeters per second (cm/s) over the course of an 80-second song, what is the **total distance** that Cue will travel?

Challenge #4: Song #2 is 200 seconds long. Solve for the **rate** that Cue will need to travel in order to cover the same total distance covered in Song #1. State your answer as **cm/s**.

