

Students sort cards into two piles depending on an answer of “yes” or “no” for each question. Teacher then facilitates a conversation about continuity, leading to a formal definition.

<p><i>Flying home from a vacation in Costa Rica, Austin’s plane reached an altitude of 38,000 feet. Was there a moment in time when the plane flew at an altitude of 20,000 feet? [If so, how many times did the plane attain an altitude of 20,000 feet?]</i></p>	<p><i>After the first day of spring break, Jamie’s husband noticed that the odometer on the car read 285 miles. After the 5th day of spring break, the odometer read 725 miles. Was there a day when the odometer showed 400 miles?</i></p>
<p><i>In 2016, the College of Engineering at MSU had 5679 undergraduates enrolled in the program. In 2010, there were 5392 undergraduates enrolled in the engineering program. Was there a year when 5500 students were enrolled in the College of Engineering program at MSU?</i></p>	<p><i>Lauren was 48 inches tall in 4th grade. In 10th grade, her height was 65 inches. Was there ever a moment when her height was exactly 50.261 inches?</i></p>
<p><i>Ella had 38 jellybeans in her basket at 10 am. At 2 pm, she had 20 jellybeans in the basket. Must there have been a moment when her basket contained 25 jellybeans?</i></p>	<p><i>Nate works for a company that offers hot air balloon rides. One of the balloons being used for an event had 17,000 cubic feet of air inside at 5 pm. At 5:15 pm, the balloon contained 75,000 cubic feet. Was there ever a moment when the balloon contained 62,470 cubic feet of hot air?</i></p>
<p><i>Dave had 6 books in his locker before 1st hour started and 3 books in his locker after school. Was there a moment during the day when he had exactly 4 books in his locker?</i></p>	<p><i>Sherri’s temperature was fine at 8 am (98.6° F). By noon, however, she had a mild fever (99.1° F). Was there a moment between 8 am and noon when her temperature was 100° F?</i></p>

<p><i>Mrs. VanderBee lives at 1220 Precalculus Dr. Mrs. Beemer lives next door at 1230 Precalculus Dr. Is there a house Mrs. Montgomery could move into at 1222 Precalculus Dr. to be by her friends?</i></p>	<p><i>Luke starts at a stop light and is going 45 miles per hour after a minute. Is there a time when he is going the 35 mile per hour speed limit?</i></p>
<p><i>Ammon had \$20 when he went to the store. When he came home, he had \$13.25. Must there be a time when Ammon had \$17.32?</i></p>	<p><i>When Graydon got into the bathtub, there was 30 gallons of water. He opened the drain and when I stopped it there was 24 gallons of water left in the tub. Was there a time when there was 25.4 gallon of water in the tub?</i></p>
<p><i>Fay had a total of 12 credits at the end of her sophomore year. She graduates with 24 credits. Must Fay have a total of exactly 14.5 credits on a report card during her high school career?</i></p>	<p><i>Red Riding hood lives an hour and 15 minutes away from her Grandma. When Red goes to visit her Grandma, must there be a time that she is 25 minutes away from her Grandma's house?</i></p>