

An aerial photograph of a hot air balloon festival. In the foreground, a large yellow hot air balloon with a red and white checkered pattern and the text "California Dreams" is visible. Below it, a large blue and yellow striped hot air balloon is in flight. The festival grounds are filled with various colorful balloons, tents, and structures. A large blue lake is in the middle ground, and rolling hills are in the background under a clear blue sky.

# Midpoints and Bisectors



# Midpoints and Bisectors

- Use the terms congruent, midpoint, and bisect.
- Use both the Segment Addition Postulate and the Bisector Theorem to solve for lengths of a segment.
- Language Objectives:
  - Define congruent, midpoint, and bisect
  - Explain the difference between the Bisector Theorem and the Segment Addition Postulate

# Vocabulary



- Congruent

- Midpoint

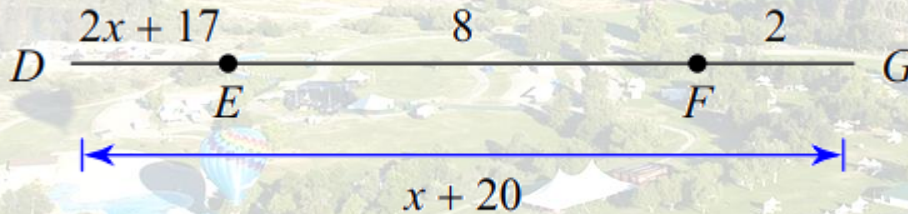
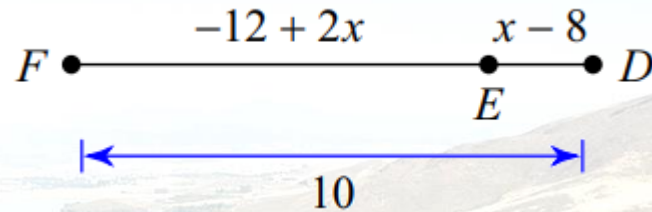
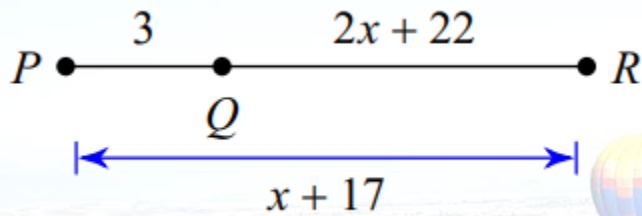
- Bisect





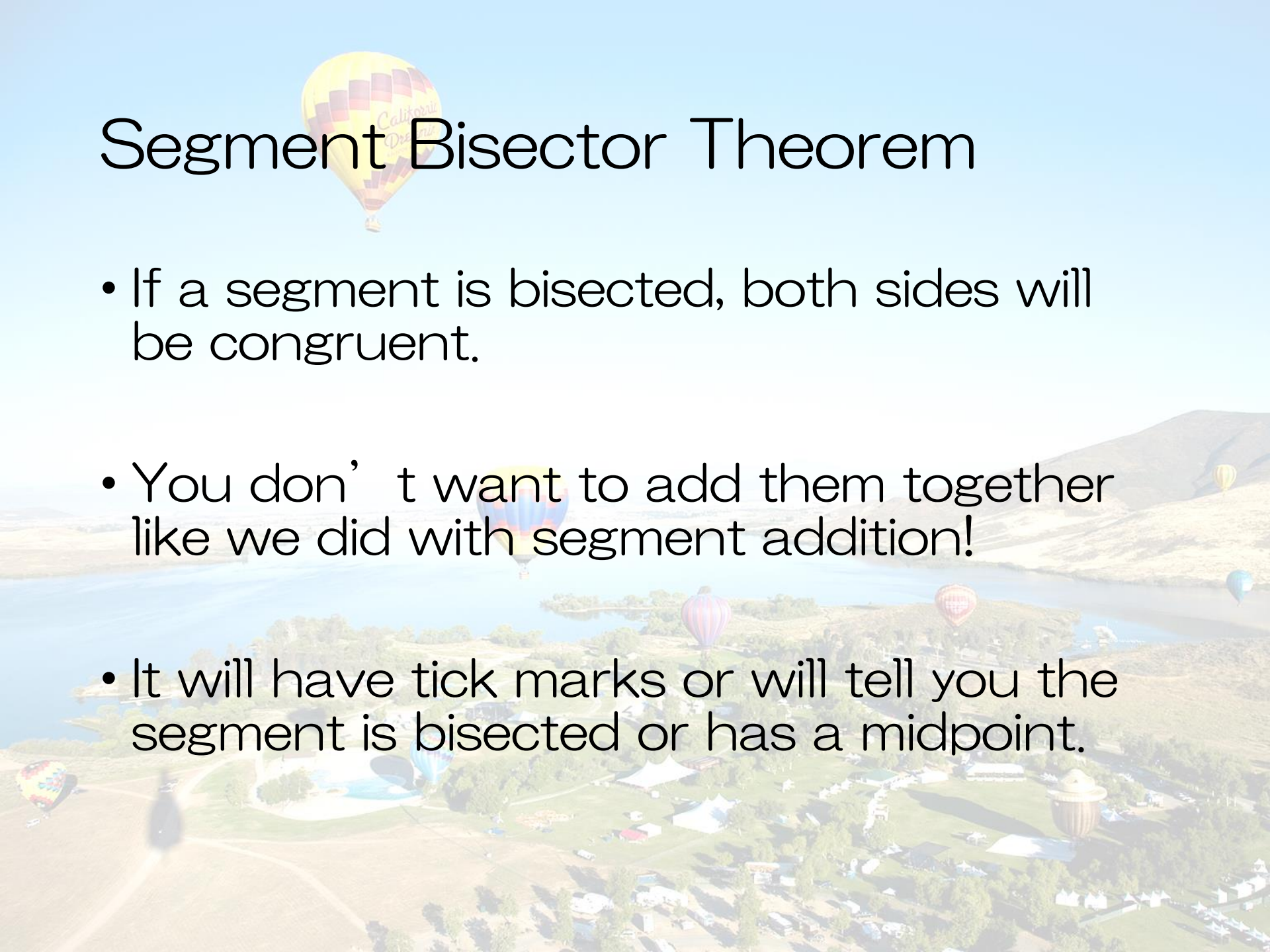
# Segment Addition Postulate

- Set up the equations for each.



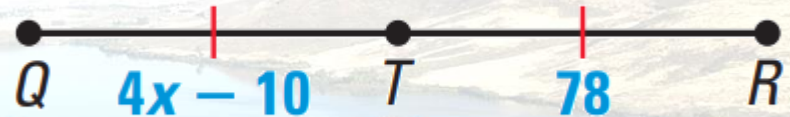
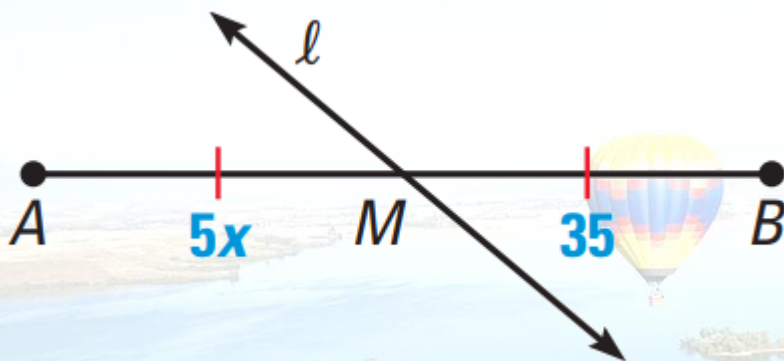


# Segment Bisector Theorem

- If a segment is bisected, both sides will be congruent.
  - You don't want to add them together like we did with segment addition!
  - It will have tick marks or will tell you the segment is bisected or has a midpoint.
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# Segment Bisector Practice

- Set up an equation for each.

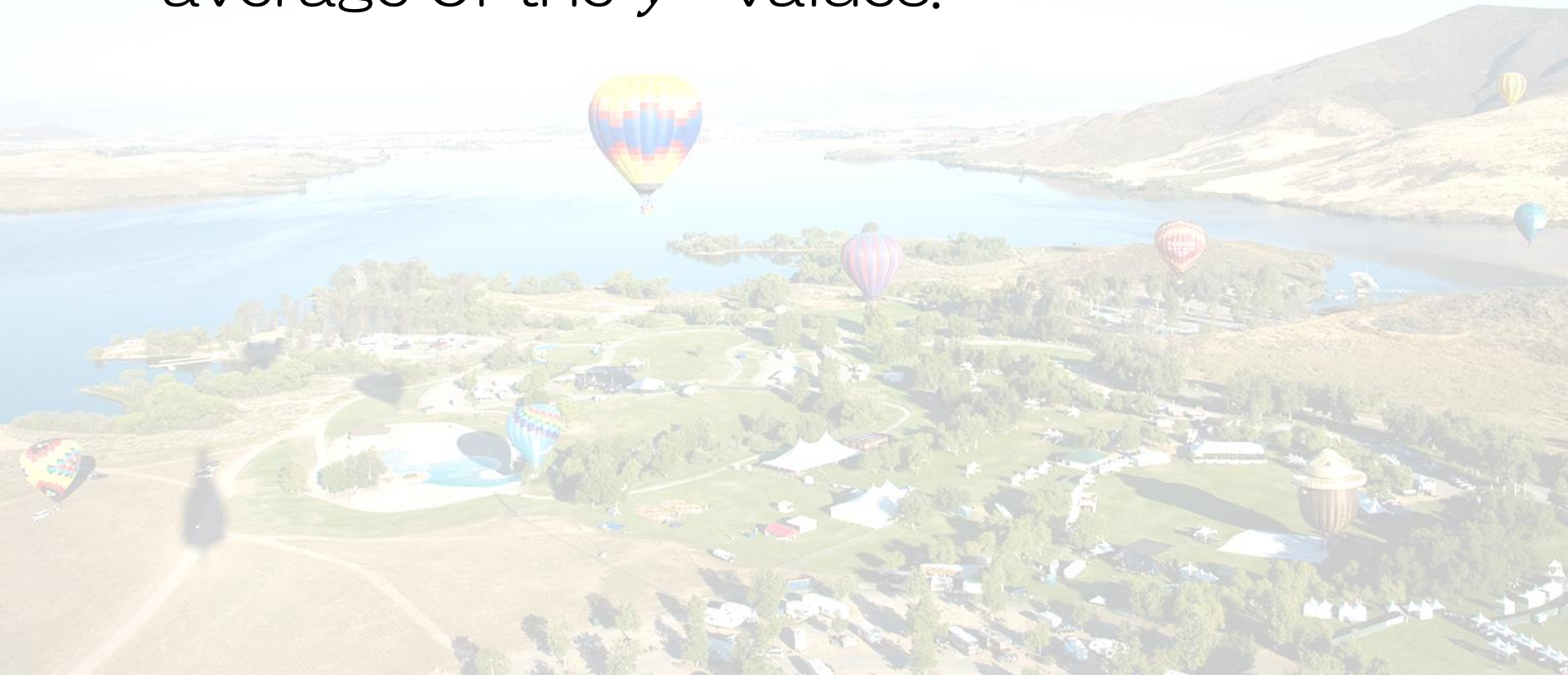




# Midpoint

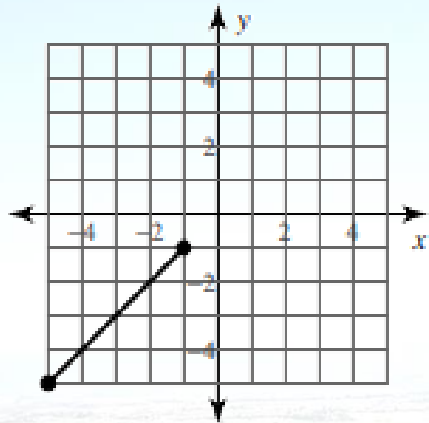


- You can find the midpoint by getting the average of the  $x$  -values and getting the average of the  $y$  -values.

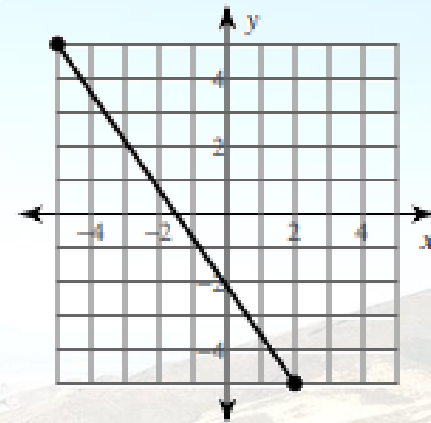


# Midpoint Practice

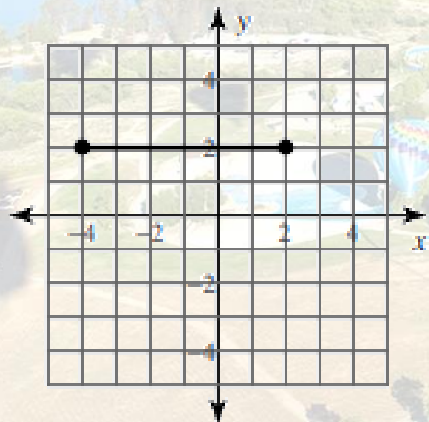
1)



2)



3)



4)

