

## Heron's Formula

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Use the information on page 1.11 to answer each question.

1. Based on the chart, what is the probability of getting:
  - a) no triangle
  - b) area more than 10
  
2. What conditions must be satisfied to get a triangle, if the sides have length  $a$ ,  $b$ , and  $c$ ?
  
3.
  - a) What is the largest area on your chart?
  - b) What is the largest possible area?
  - c) What is the smallest area on your chart?
  - d) What is the smallest possible area?
  
4. What happens if Heron's Formula is used when the sides do not form a triangle? Give examples.
  
5. Given each set of three lengths, indicate whether they will form a triangle, and if so, what kind - equilateral, isosceles, or scalene.
  - a. 2, 5, 3
  - b. 9, 7, 13
  - c. 10, 18, 10
  - d. 4, 8, 14
  - e. 9, 21, 13
  - f. 7, 7, 7