Geometry

11.7 Use Geometric Probability

# Probability

Total

Favorable

Let’s say you are listening to a radio contest where you hear a song and call in and name it. The song was supposed to be played between 12:00 and 1:00, but you can only listen from 12:20 to 1:00 because that is when you get out of class. What is the probability that you will hear the song?

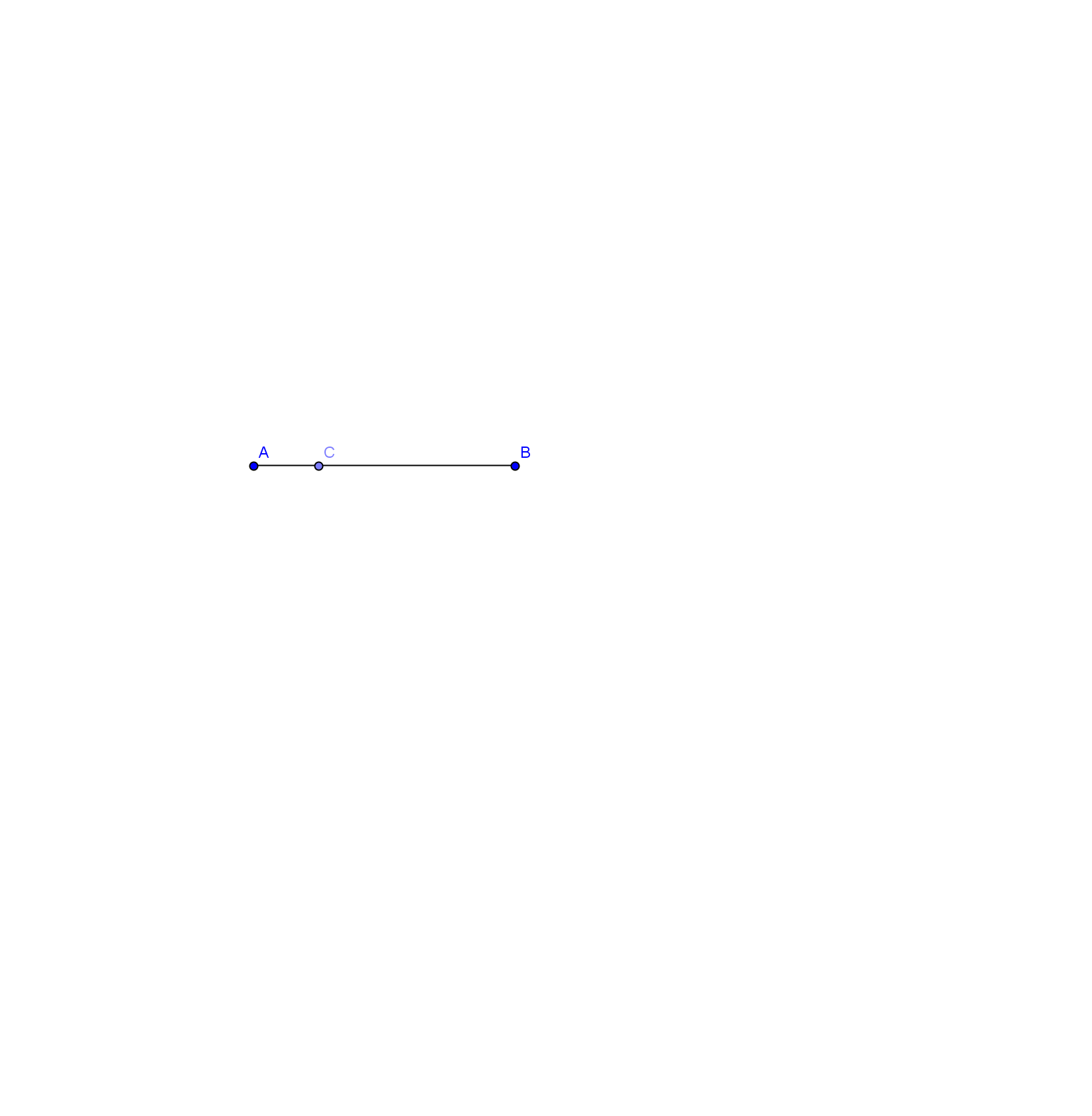
But we have basically a line (timeline), so Probability will be

## Length Probability Postulate

AC

probability

random

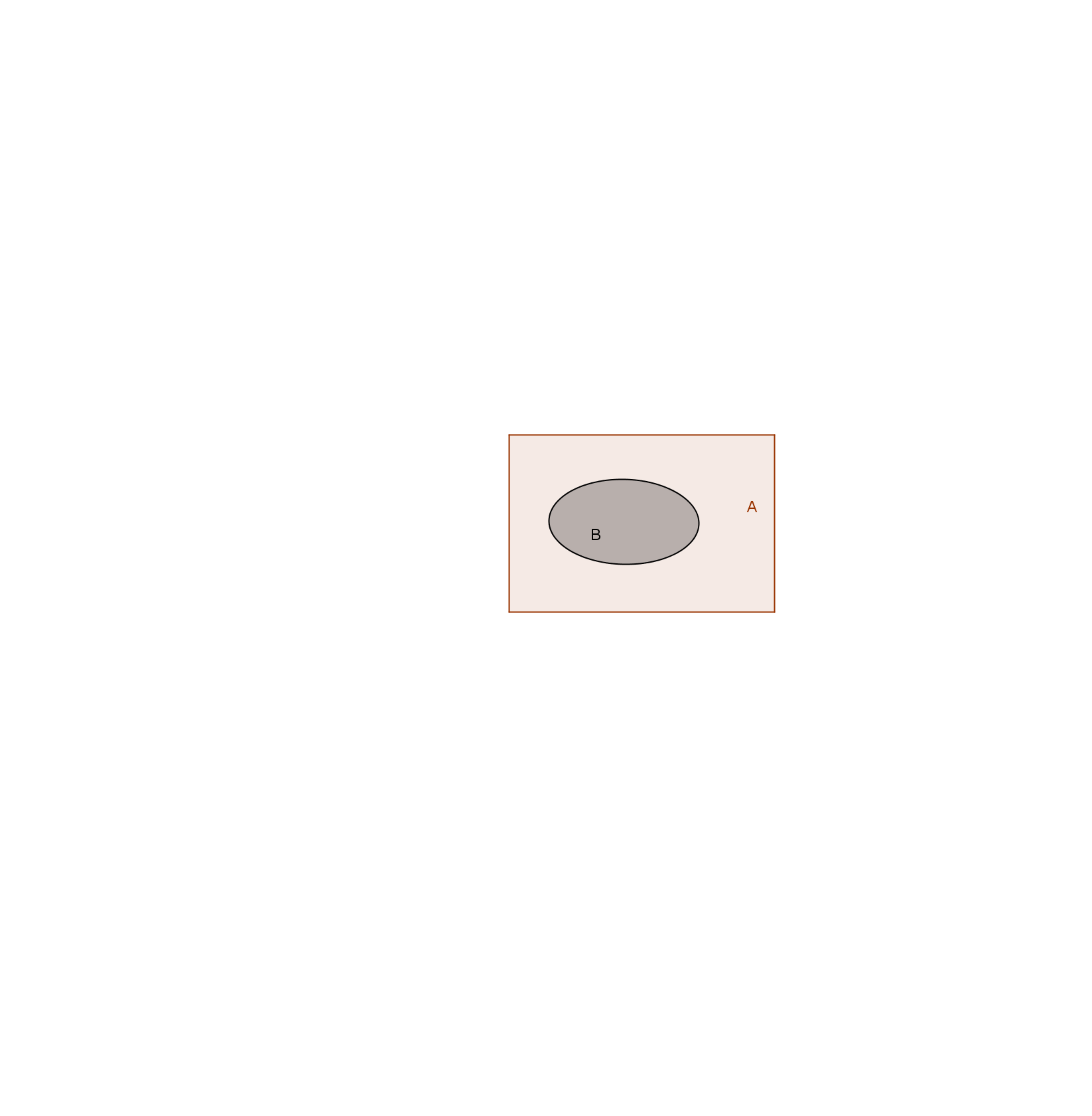
If a point on AB is chosen at \_\_\_\_\_\_\_\_\_ and C is between A and B, then the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that the point is on \_\_\_\_\_ is .

## Area Probability Postulate

B

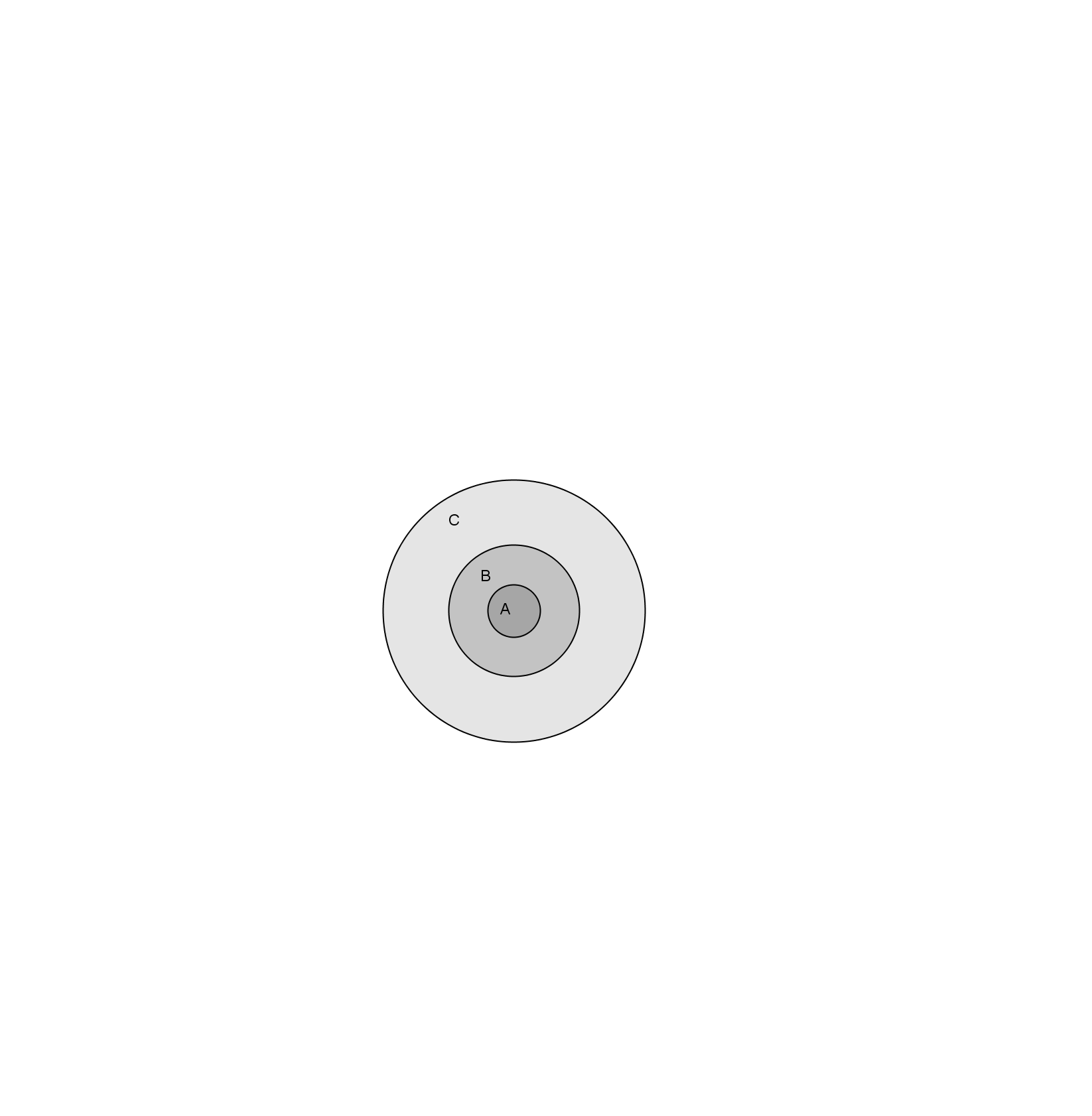
point

random

If a point in region A is chosen at \_\_\_\_\_\_\_\_\_, then the probability that the \_\_\_\_\_\_\_\_\_\_\_ is in region \_\_\_\_, which is in the \_\_\_\_\_\_\_\_\_\_ of region A, is .

interior

Joanna designed in a new dart game. A dart in section A earns 10 points; a dart in section B earns 5 points; a dart in section C earns 2 points. Find the probability of earning each score. Round to the nearest hundredth. (rA = 2, rB = 5, rC = 10)



Area of A = π22 = 12.566

Area of B = π52 – 12.566 = 65.974

Area of C = π102 – π52 = 235.619

Area of Board = π102 = 314.159

Assignment: 774 #4-26 even, 30-38 even, 39-44 all = 23

Extra Credit: 777 #2, 4 = +2