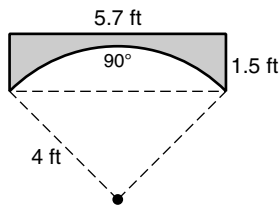


LESSON
11-3

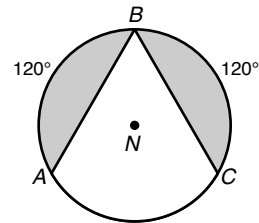
Problem Solving
Sector Area and Arc Length

- A circle with a radius of 20 centimeters has a sector that has an arc measure of 105° . What is the area of the sector? Round to the nearest tenth.
- A sector whose central angle measures 72° has an area of 16.2π square feet. What is the radius of the circle?

- The archway below is to be painted. What is the area of the archway to the nearest tenth?

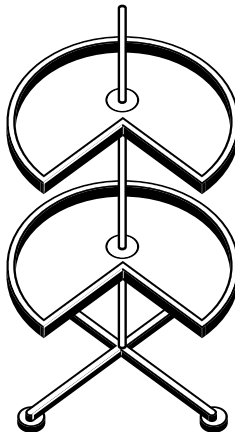


- Circle N has a circumference of 16π millimeters. What is the area of the shaded region to the nearest tenth?



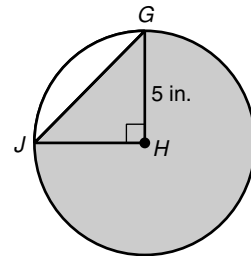
Choose the best answer.

- The circular shelves in diagram are each 28 inches in diameter. The “cut-out” portion of each shelf is 90° . Approximately how much shelf paper is needed to cover both shelves?



- A** 154 in^2
B 308 in^2
C 462 in^2
D 924 in^2

- Find the area of the shaded region. Round to the nearest tenth.



- F** 8.2 in^2 **H** 71.4 in^2
G 19.6 in^2 **J** 78.5 in^2

- A semicircular garden with a diameter of 6 feet is to have 2 inches of mulch spread over it. To the nearest tenth, what is the volume of mulch that is needed?

- A** 2.4 ft^3 **C** 14.1 ft^3
B 4.8 ft^3 **D** 28.3 ft^3

- A round cheesecake 12 inches in diameter and 3 inches high is cut into 8 equal-sized pieces. If five pieces have been taken, what is the approximate volume of the cheesecake that remains?

- F** 42.4 in^3 **H** 127.2 in^3
G 70.7 in^3 **J** 212.1 in^3