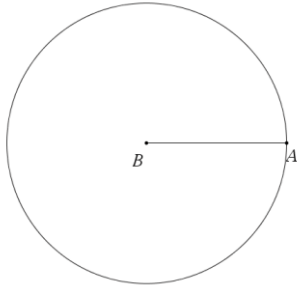


Arc Length Problems

1. For each scenario, determine the missing part, s , r , or θ
2. Place point C on the circle's circumference in a REALISTIC place that would satisfy your scenario and LABEL all parts with appropriate variables and EXACT VALUES. NOTE AC is the arc that we are finding the length of in each scenario

Scenario #1

Given that you know the radius is 20 m. and that the arc length is 8π m. determine the central angle in exact radians and approximate radians



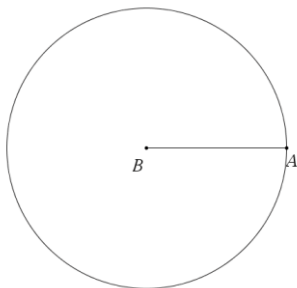
Exact central angle in radians

Approximate central angle in radians
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Scenario #2

Given that you know the radius is 20 m. and that central angle is $\frac{\pi}{12}$ radians determine the length of arc created



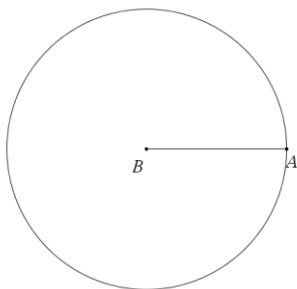
Exact arc length

Approximate arc length
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Scenario #3

Given that you know the arc length is 20 m. and that central angle is $\frac{8\pi}{5}$ radians determine the length of radius



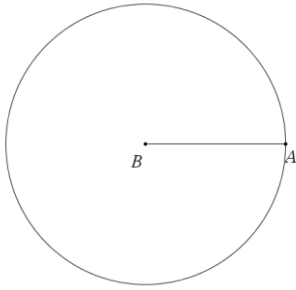
Exact radius length

Approximate radius
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Scenario #4

Given that you know the radius is 20 m. and that the arc length is 18 m, determine the central angle in exact radians and approximate radians



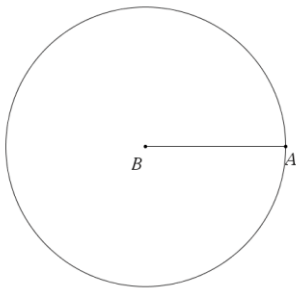
Exact central angle in radians

Approximate central angle in radians
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Scenario #5

Given that you know the radius is 20 m. and that central angle is 4.8 radians determine the length of arc created



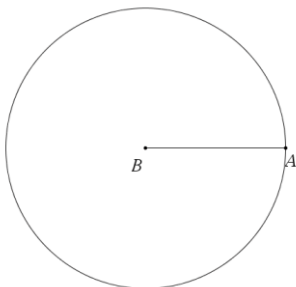
Exact arc length

Approximate arc length
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Scenario #6

Given that you know the arc length is 20 m. and that central angle is 5.8 radians determine the length of radius



Exact radius length

Approximate radius
(round to two decimals)

EC: If the origin is B, then give the EXACT coordinates of C

Convert $172^{\circ} 26' 24''$ to Decimal degrees YOU MUST SHOW PROCESS TO RECEIVE CREDIT!

Convert 82.129° to DMS (you can round to nearest tenth of a second IF necessary)

YOU MUST SHOW PROCESS TO RECEIVE CREDIT!