

Arc length with degrees
Worksheet

Name: _____

Date: _____ Period: _____

1. A circle with circumference **60** has an arc with a **36°** angle. What is the length of the arc?
2. A circle with circumference **1380** has an arc with a **6°** angle. What is the length of the arc?
3. A circle with circumference **240** has an arc with a length of **6**. Find the central angle of the arc, in degrees.
4. A circle with circumference **240** has an arc with a length of **2**. Find the central angle of the arc, in degrees.
5. A circle has an arc of length **27** with central angle **9°** . Find the circumference of the circle.
6. A circle has an arc of length **38** with central angle **10°** . Find the circumference of the circle.
7. Enter as an exact answer in terms of π , or as a decimal rounded to the hundredths place.
A circle with radius **144** has an arc with a **40°** angle. What is the length of the arc?
8. Enter as an exact answer in terms of π , or as a decimal rounded to the hundredths place.
A circle with radius **74** has an arc with a **90°** angle. What is the length of the arc?

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9. A circle with radius $\frac{580}{\pi}$ has an arc with a length of 29. Find the central angle of the arc, in degrees.

10. A circle with radius $\frac{168}{\pi}$ has an arc with a length of 28. Find the central angle of the arc, in degrees.

Arc length with degrees**Answer key**

1. A circle with circumference 60 has an arc with a 36° angle. What is the length of the arc?
6
2. A circle with circumference 1380 has an arc with a 6° angle. What is the length of the arc?
23
3. A circle with circumference 240 has an arc with a length of 6. Find the central angle of the arc, in degrees.
 9°
4. A circle with circumference 240 has an arc with a length of 2. Find the central angle of the arc, in degrees.
 3°
5. A circle has an arc of length 27 with central angle 9° . Find the circumference of the circle.
1080
6. A circle has an arc of length 38 with central angle 10° . Find the circumference of the circle.
1368
7. Enter as an exact answer in terms of π , or as a decimal rounded to the hundredths place.
A circle with radius 144 has an arc with a 40° angle. What is the length of the arc?
 32π
8. Enter as an exact answer in terms of π , or as a decimal rounded to the hundredths place.
A circle with radius 74 has an arc with a 90° angle. What is the length of the arc?
 37π
9. A circle with radius $\frac{580}{\pi}$ has an arc with a length of 29. Find the central angle of the arc, in degrees.
 9°
10. A circle with radius $\frac{168}{\pi}$ has an arc with a length of 28. Find the central angle of the arc, in degrees.
 30°