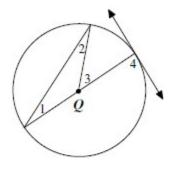
1

In the figure below, ${\it Q}$ is the center of the circle.

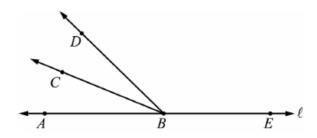


Which angle is a central angle?

- A ∠1
- B ∠2
- C \(\angle 3
- D ∠4

2.

In the figure below, \overrightarrow{BC} bisects $\angle ABD$, and A, B, and E are all points on line ℓ .



Which angles must be congruent?

- **A** $\angle ABC$ and $\angle CBD$
- B $\angle ABC$ and $\angle CBE$
- C $\angle ABD$ and $\angle DBE$
- **D** $\angle CBD$ and $\angle ABD$

"If an animal is an ape, then it is a primate."

"If an animal is a primate, then it has hair."

Bongo is an ape. Using these conditions, what is the correct conclusion?

- A Bongo does not have hair.
- B Bongo has hair.
- C Bongo is a chimpanzee.
- D Bongo is not a primate.

4.

A baby bottle manufacturer noticed that sales of bottles with teddy bears on them decreased during a 5-month period. The data are shown in the table below.

Month	Bottles Sold
January	1250
February	1100
March	950
April	800
May	650

Which number represents the BEST conjecture about the number of baby bottles with teddy bears the manufacturer will sell in June?

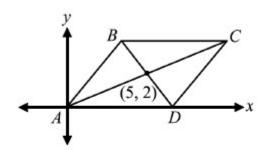
- A 150
- B 500
- C 600
- D 650

Which term matches the definition "has a definite beginning point and travels in one direction without end"?

- A line
- B ray
- C secant
- D line segment

6.

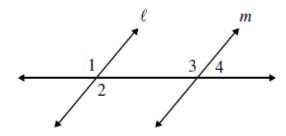
In the figure below, the diagonals of parallelogram *ABCD* intersect at (5, 2).



What are the coordinates of point C?

- A (7, 3)
- B (8, 3)
- C (9, 4)
- D (10, 4)

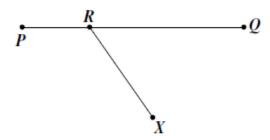
In the figure below, ℓ is parallel to m. Which of the following are corresponding angles?



- A $\angle 1$ and $\angle 2$
- B $\angle 1$ and $\angle 3$
- C $\angle 2$ and $\angle 3$
- D $\angle 3$ and $\angle 4$

8.

On \overline{PQ} , R is between P and Q. Point X does not lie on \overline{PQ} and \overline{XR} is not perpendicular to \overline{PQ} .



Which of the following describes $\angle XRQ$ and $\angle XRP$?

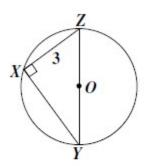
- A complementary angles
- B congruent angles
- C supplementary angles
- D vertical angles

A toy company is producing a new toy that is called a "Zerk." All Zerks are either pink or green. Which of these is NOT necessarily true based on this information?

- A If an object is blue, it is not a Zerk.
- B If a Zerk is not pink, it must be green.
- C If an object is pink or green, it must be a Zerk.
- D If an object is not pink or green, it cannot be a Zerk.

10.

In the figure below, the circle has diameter 5 and center *O*. Chord *XZ* has a length of 3.



What is the length of chord XY?

- Α π
- B 4
- C $4\frac{2}{3}$
- D √91

11.

A rectangle will be rotated 360° about a line which contains the point of intersection of its diagonals and is parallel to a side. What three-dimensional shape will be created as a result of the rotation?

A. a cube

B. a rectangular prism

C. a cylinder

D. a sphere