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OPERATIONS

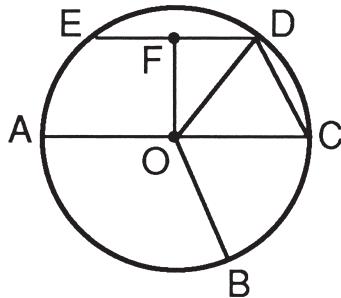
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COMPARING LENGTHS

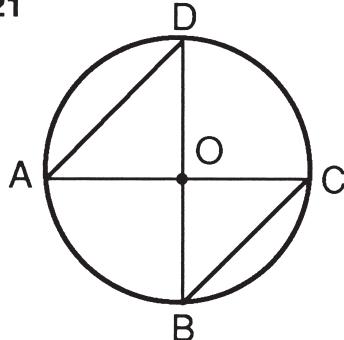
The center of each circle is "O."

Circle the letter in front of each statement that is true.

Example


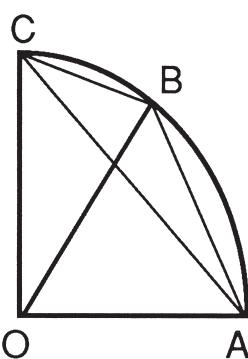
\overline{AC} is parallel to \overline{ED} .

- a. \overline{OD} is congruent to \overline{OB} .
 - b. \overline{OF} is shorter than \overline{OD} .
 - c. \overline{AO} is congruent to \overline{OF} .
 - d. \widehat{ED} is shorter than \widehat{ED} .
 - e. \widehat{AE} is congruent to \widehat{DC} .
 - f. \widehat{AE} is longer than \widehat{DC} .
-

B-21


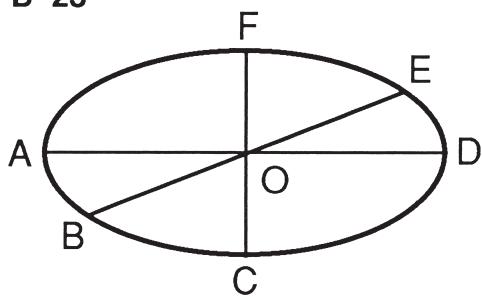
\overline{AC} and \overline{BD} are perpendicular line segments.

- a. \overline{AD} is congruent to \overline{BC} .
 - b. \overline{AO} is congruent to \overline{AD} .
 - c. \widehat{AD} is shorter than \widehat{BC} .
 - d. \overline{BD} is longer than \overline{AC} .
 - e. \widehat{BC} is longer than \widehat{AD} .
 - f. \widehat{DC} is shorter than \widehat{AB} .
-

B-22


\widehat{AC} is $\frac{1}{4}$ of a circle with the center at "O."

- a. \overline{OC} is shorter than \overline{AC} .
 - b. \widehat{AC} is longer than \widehat{AC} .
 - c. \overline{AB} is congruent to \overline{BC} .
 - d. \overline{AB} is congruent to \widehat{BC} .
 - e. \overline{AC} is shorter than \widehat{AB} .
 - f. \overline{OB} is longer than \overline{OC} .
-

B-23


The curved figure is an ellipse.

- a. \overline{OF} is longer than \overline{AO} .
- b. \overline{OF} is congruent to \overline{OE} .
- c. \overline{AD} is shorter than \overline{FC} .
- d. \overline{AD} is longer than \overline{BE} .
- e. \overline{BO} is shorter than \overline{OD} .
- f. \overline{BO} is congruent to \overline{OF} .

USING NUMBER PROPERTIES

N represents a whole number.

Find all possible values of N described in each exercise below.

Example

Properties of N

N is odd.
N > 3.
N < 12.
3 does not divide N.
N does not divide 5.

Possible Values of N

7, 11

C-175

Properties of N

N < 10.
2 does not divide N.
3 does not divide N.
N is not prime.

Possible Values of N

C-176

Properties of N

N is a two-digit number.
N < 40.
9 divides the sum of the two digits.

Possible Values of N

C-177

Properties of N

N < 40.
N is a multiple of 3.
N is odd.
9 does not divide N.

Possible Values of N

C-178

Properties of N

N > 10.
N < 40.
N is prime.
The sum of the digits of N is less than 10.

Possible Values of N

C-179

Properties of N

N is even.
N < 50.
N is a multiple of 3.
9 divides the sum of its digits.

Possible Values of N