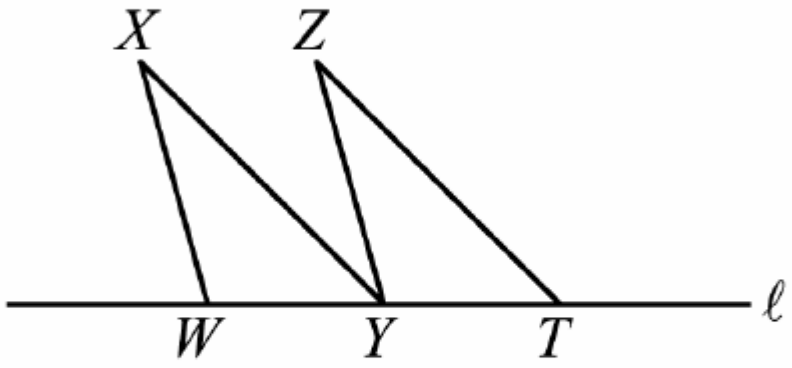
Geometry Daily Quiz 02042020

Question 1.

In the figure below, $\Delta WXY \cong \Delta YZT$. Which statement is NOT necessarily true?



A $\angle WXY \cong \angle YZT$

B $\angle WXY \cong \angle XYZ$

C The measure of $\angle XWY$ is twice the measure of $\angle YZT$.

D $\overline{XY} \parallel \overline{ZT}$

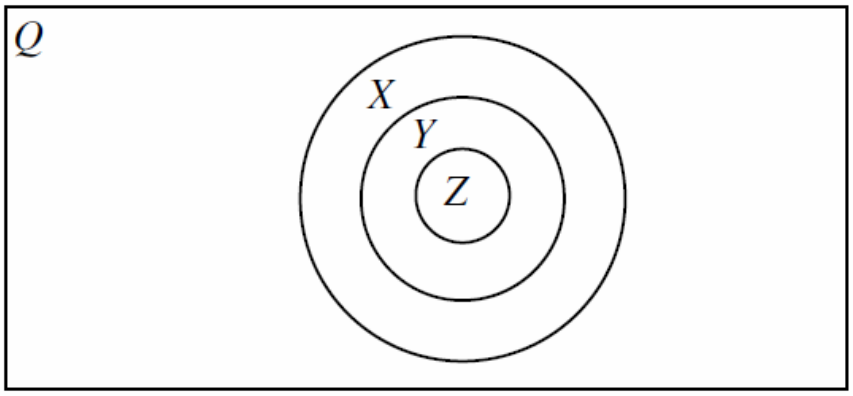
Question 2

A machine produces identical toys in the shape of a circle. Which term BEST describes the relationship between any two of these toys?

A concave
B concentric
C congruent
D tangent

Question 3.

The Venn diagram below represents the set of all quadrilaterals.



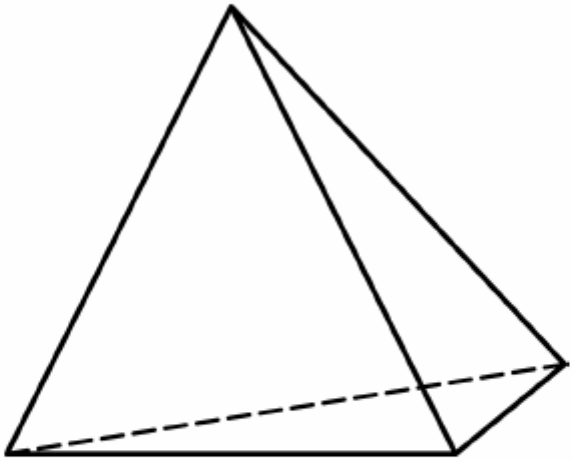
Q = Quadrilaterals

Which answer represents appropriate choices for X, Y, and Z, in that order?

A parallelogram, trapezoid, square
B parallelogram, rectangle, square
C rectangle, parallelogram, square
D rectangle, trapezoid, square

Question 4.

The figure below represents a solid. For this solid, what are E, the number of edges, and F, the number of faces?



A $E = 6,\ F = 4$

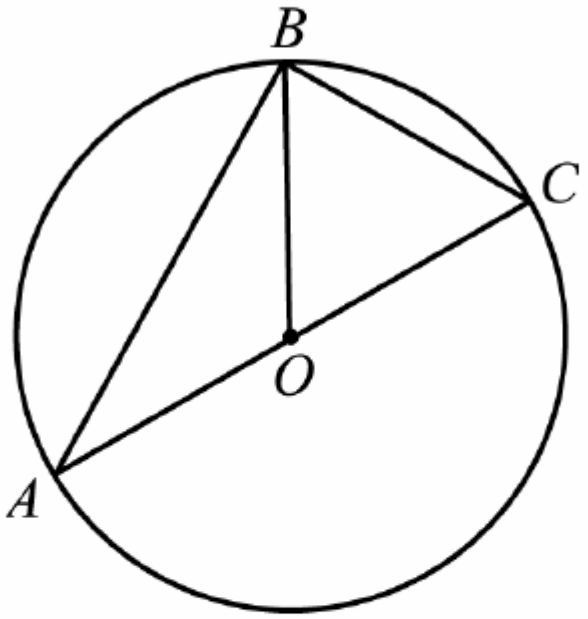
B $E = 6,\ F = 3$

C $E = 4,\ F = 6$

D $E = 3,\ F = 5$

Question 5.

In the figure below, O is the center of the circle.

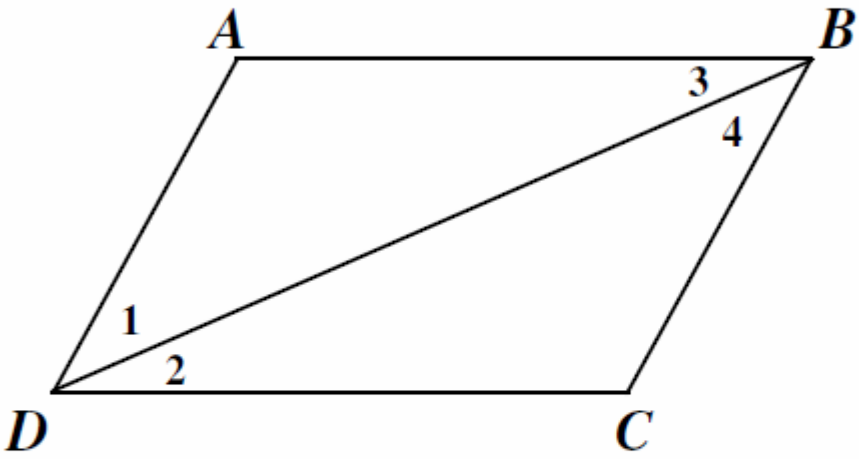


If the measure of minor arc $\overset{\frown}{BC}$ is 60°, what is the measure of $\angle ABO$?

A 20°
B 30°
C 40°
D 50°

Question 6.

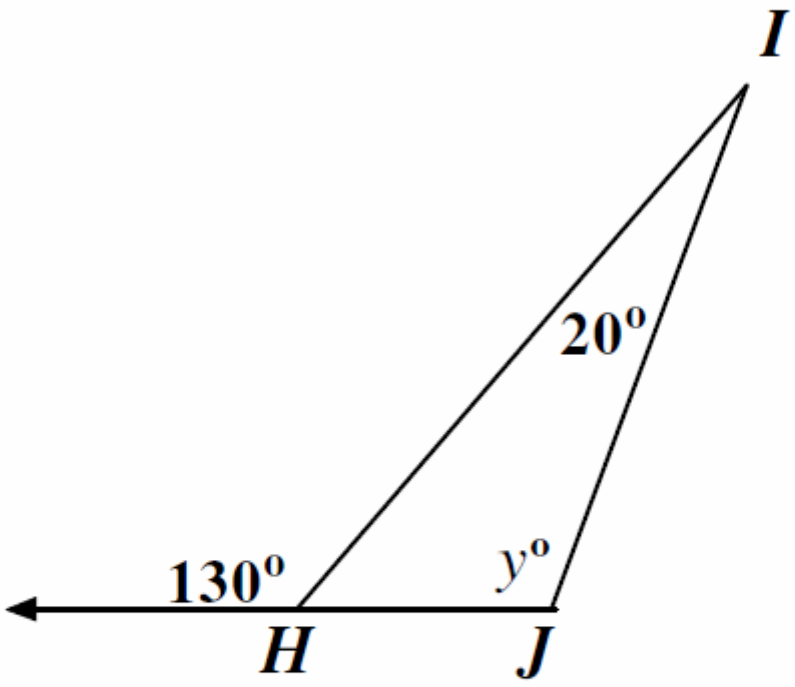
Quincy finished proving that $\Delta ABD \cong \Delta CDB$. Using Quincy's diagram below, which is a pair of corresponding angles?



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

Question 7.

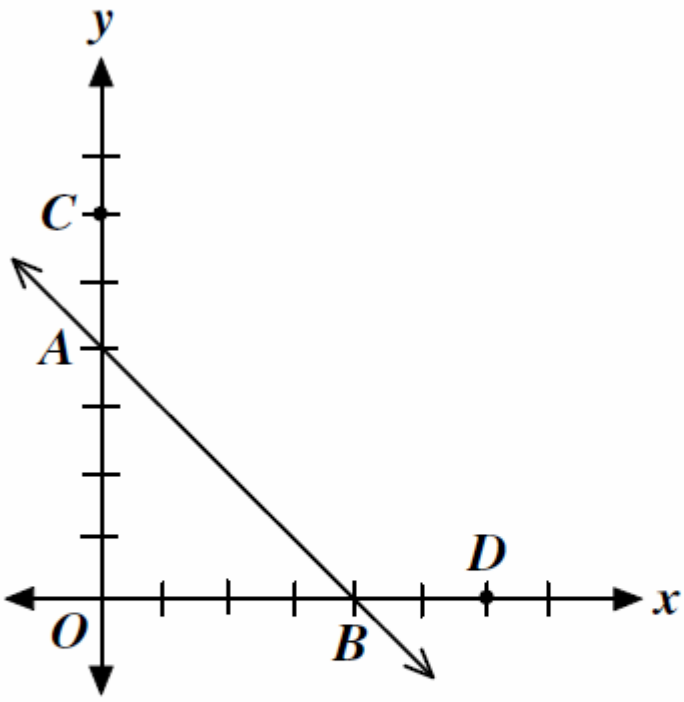
In ΔHIJ below, what is the value of y?



A 80
B 70
C 110
D 130

Question 8.

If ΔAOB is dilated to ΔCOD, then which statement is true?



A ΔAOB is congruent to ΔCOD.

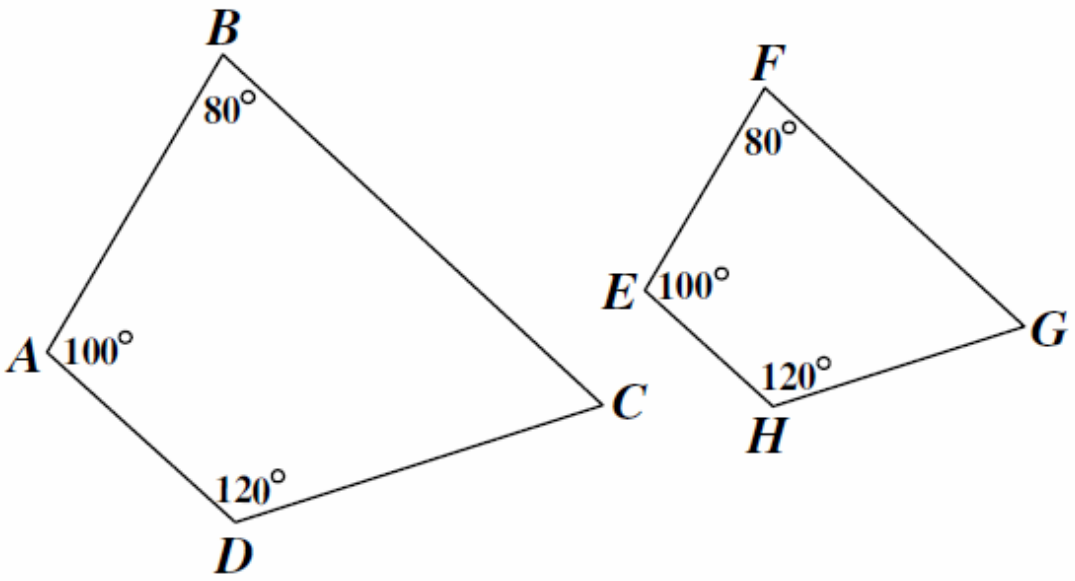
B ΔAOB is similar to ΔCOD.

C ΔAOB has half the area of ΔCOD.

D ΔAOB has half the perimeter of ΔCOD.

Question 9.

In the diagram below, $ABCD$ is similar to $EFGH$.



If $\frac{AB}{EF} = \frac{3}{2}$ and the perimeter of $ABCD$ is 12, what is the perimeter of $EFGH$?

A 27
B 18
C 15
D 8

Question 10.

Haley looked at Figure 1 and moved the shape to create Figure 2.

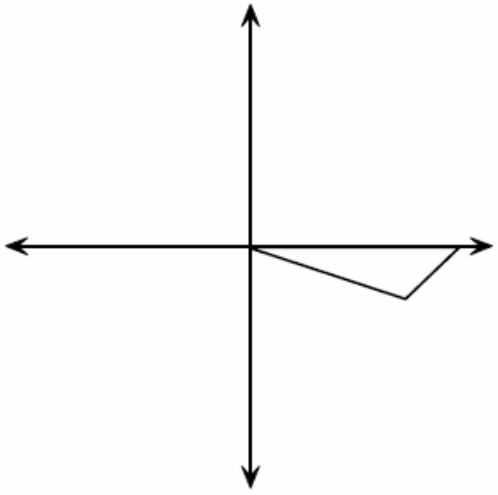


Figure 1

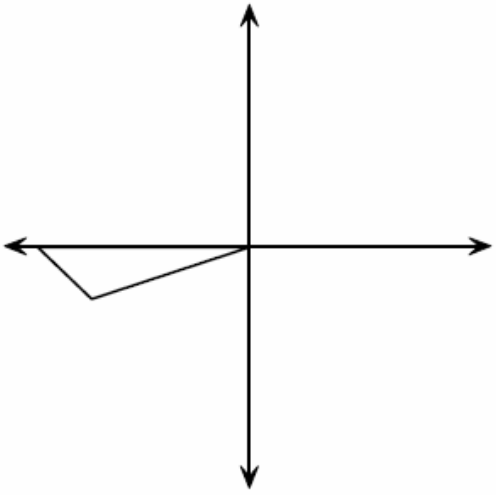


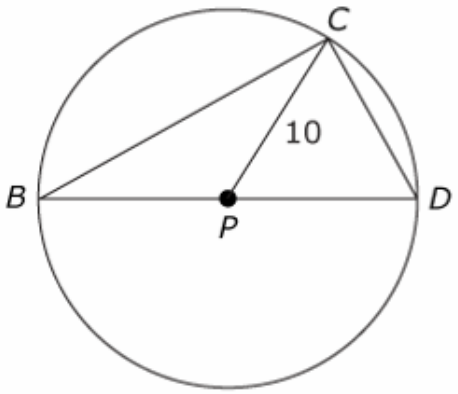
Figure 2

Which term describes the change that Haley made?

A dilation
B reflection
C rotation
D translation

Bonus ** The problem says m<CBE =x^0 it should read m<CBD= x^0

17. The figure shows a circle with center P, a diameter $\overline{BD}$, and inscribed $\triangle BCD$. $PC = 10$. Let $m\angle CBE = x°$ and $m\angle BCD = (x + 54)°$.



not to scale

Part A

Find the value of x.

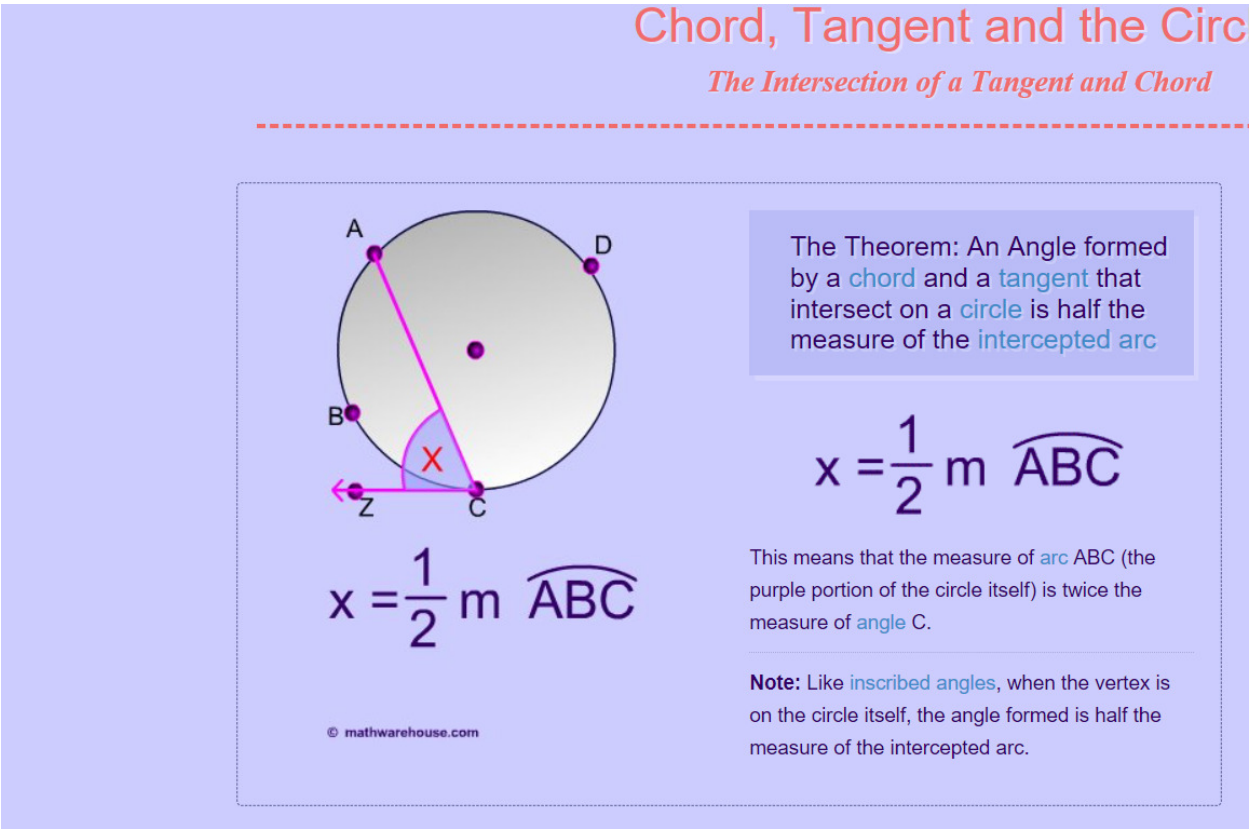
Enter your answer in the box.

$x =$ [ ]

Part B

Select from the drop-down menus to correctly complete the sentence.

The length of $\overline{CD}$ is [Choose... / 10 / less than 10 / greater than 10] **because** [Choose... / $\triangle CPD$ is equilateral / $m\angle CPD < 60°$ / $m\angle CPD > 60°$]



http://www.mathwarehouse.com/geometry/circle/angle-tangent-and-chord.php

Converse, Inverse, Contrapositive

Given an if-then statement "if p , then q ," we can create three related statements:

A conditional statement consists of two parts, a hypothesis in the "if" clause and a conclusion in the "then" clause. For instance, "If it rains, then they cancel school."
"It rains" is the hypothesis.
"They cancel school" is the conclusion.

To form the converse of the conditional statement, interchange the hypothesis and the conclusion.
The converse of *"If it rains, then they cancel school"* is *"If they cancel school, then it rains."*

To form the inverse of the conditional statement, take the negation of both the hypothesis and the conclusion.
The inverse of *"If it rains, then they cancel school"* is *"If it does not rain, then they do not cancel school."*

To form the contrapositive of the conditional statement, interchange the hypothesis and the conclusion of the inverse statement.
The contrapositive of *"If it rains, then they cancel school"* is *"If they do not cancel school, then it does not rain."*

The link to the above information.
https://www.varsitytutors.com/hotmath/hotmath_help/topics/converse-inverse-contrapositive

PARCC
Partnership for Assessment of Readiness for College and Careers

High School Mathematics Assessment Reference Sheet

1 inch = 2.54 centimeters
1 meter = 39.37 inches
1 mile = 5280 feet
1 mile = 1760 yards
1 mile = 1.609 kilometers

1 kilometer = 0.62 mile
1 pound = 16 ounces
1 pound = 0.454 kilograms
1 kilogram = 2.2 pounds
1 ton = 2000 pounds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 gallon = 3.785 liters
1 liter = 0.264 gallons
1 liter = 1000 cubic centimeters

Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Circle	$C = \pi d \ \ or \ \ C = 2\pi r$
General Prisms	$V = Bh$
Cylinder	$V = \pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$
Cone	$V = \frac{1}{3}\pi r^2 h$
Pyramid	$V = \frac{1}{3}Bh$

Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Arithmetic Sequence	$a_n = a_1 + (n-1)d$
Geometric Sequence	$a_n = a_1 r^{n-1}$
Geometric Series	$S_n = \frac{a_1 - a_1 r^n}{1-r}$ where $r \neq 1$
Radians	1 radian $= \frac{180}{\pi}$ degrees
Degrees	1 degree $= \frac{\pi}{180}$ radians