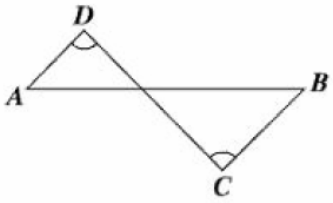
Geometry Daily Quiz 03102020

We have to keep working on speed and accuracy. Check back to make sure you have a hundred before you hand up your paper.

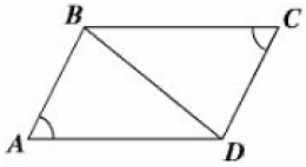
Question 1.

Based on the given information, which figure contains a pair of similar triangles?

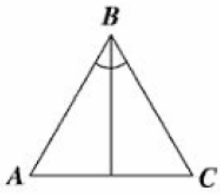
A Given: $\overline{AB}$ intersects $\overline{CD}$



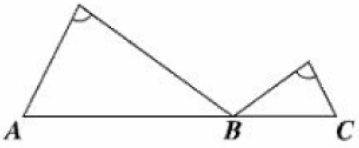
B Given: Quadrilateral $ABCD$



C Given: $\triangle ABC$

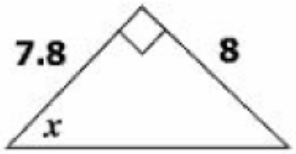


D Given: A, B, and C are collinear



Question 2

A right triangle is shown.

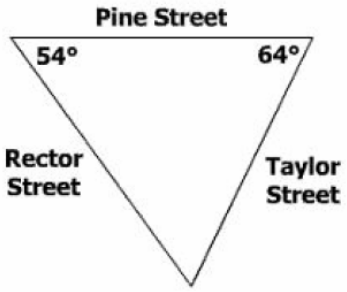


Which angle measure is closest to the value of x ?

- **A** 43.9°
- **B** 44.3°
- **C** 45.7°
- **D** 46.2°

Question 3.

Pine Street, Rector Street, and Taylor Street intersect to form a triangular-shaped park as shown.

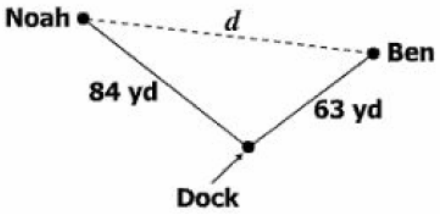


What is the correct order of the lengths of the streets from longest to shortest?

- **A** Pine, Taylor, Rector
- **B** Rector, Taylor, Pine
- **C** Rector, Pine, Taylor
- **D** Taylor, Pine, Rector

Question 4.

The diagram shows the locations of Noah and Ben after swimming in different directions from a dock. Let d be the distance from Noah to Ben, in yards.



Which represents all the possible values, in yards, of d ?

A $0 < d < 105$

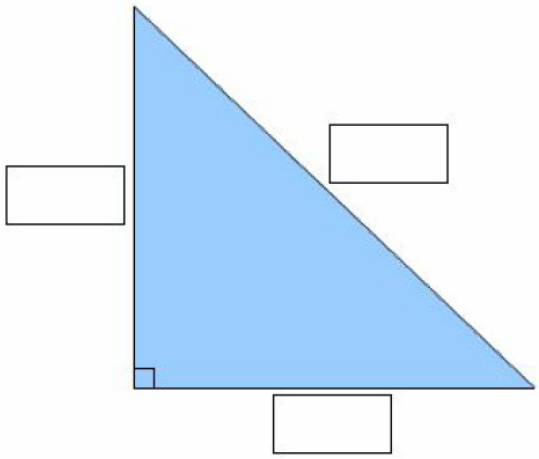
B $0 < d < 147$

C $21 < d < 147$

D $63 < d < 84$

Question 5.

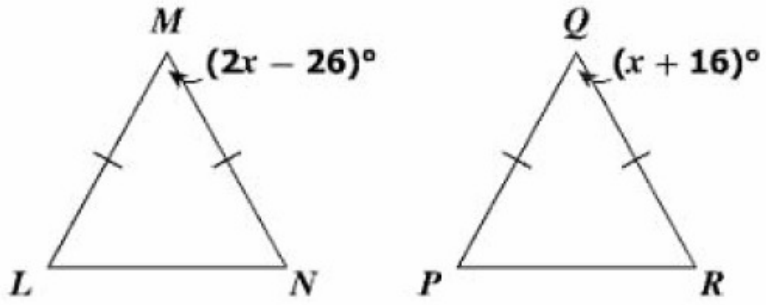
Select the measures that could be the three side lengths of a right triangle.



17 cm	20 cm	21 cm	29 cm

Question 6.

Given: $\triangle LMN$ and $\triangle PQR$ are isosceles



What $m\angle P$ could be used to prove $\triangle LMN \cong \triangle PQR$?

A 42°

B 58°

C 61°

D 69°

Question 7.

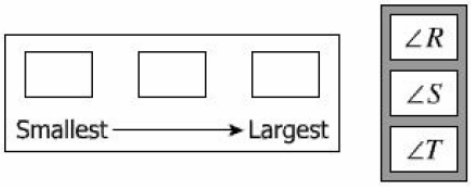
Given: $\triangle RST$

$RS = 14$ **in.**

$ST = 10$ **in.**

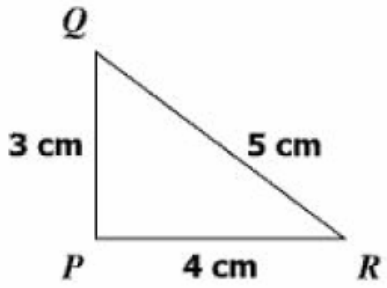
$TR = 16$ **in.**

List the interior angles of $\triangle RST$ **in order from smallest to largest.**



Question 8.

Triangle LMN is similar to triangle PQR.



Which of the following sets of side lengths could be those of triangle LMN?

A 2 in., 3 in., 4 in.

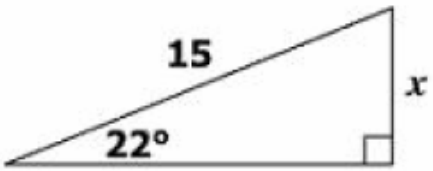
B 6 km, 7 km, 8 km

C 8 ft, 15 ft, 17 ft

D 9 m, 12 m, 15 m

Question 9.

A right triangle is shown.



Which is closest to the value of x ?

A 13.9

B 9.0

C 6.1

D 5.6

Question 10.

A convex polygon has only the vertices A, B, C, D, and E. What is the sum of the measures of the interior angles of this polygon?

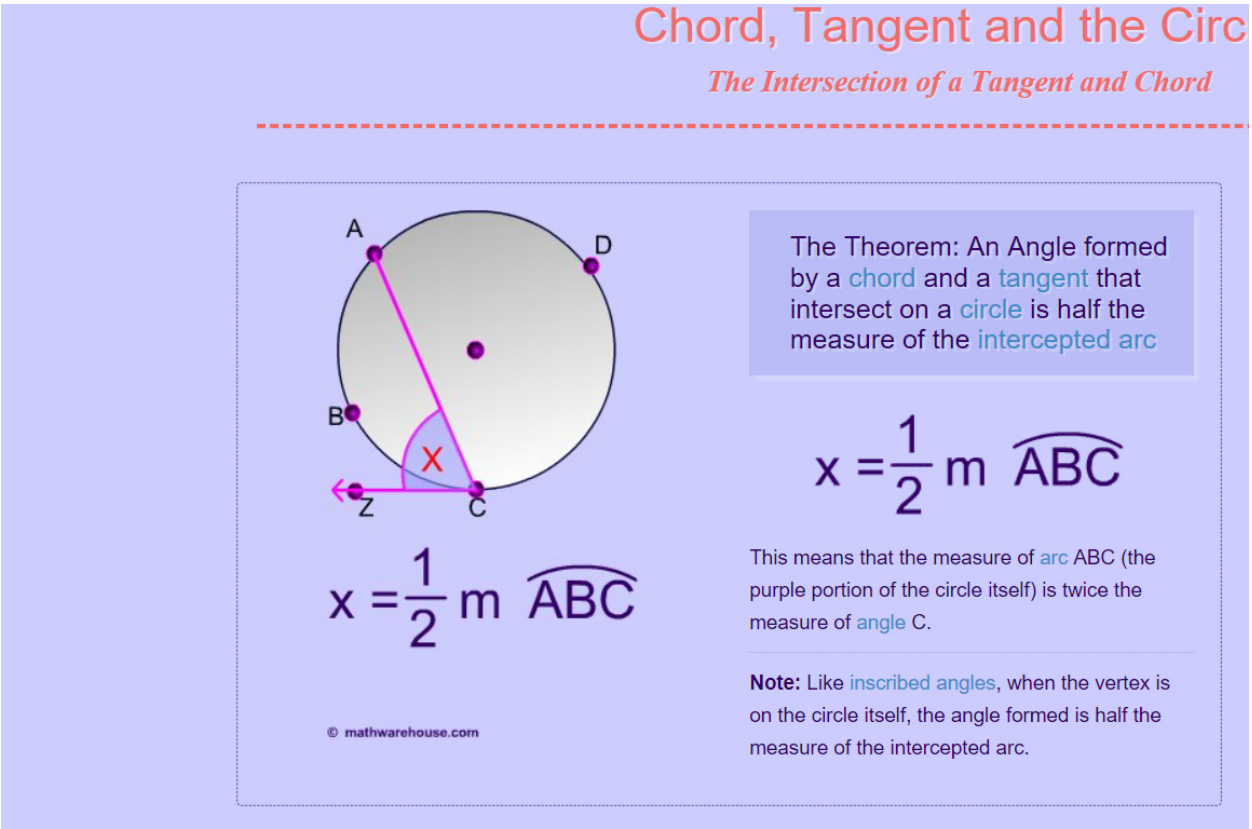
A 360°

B 540°

C 900°

D 1260°

Bonus



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