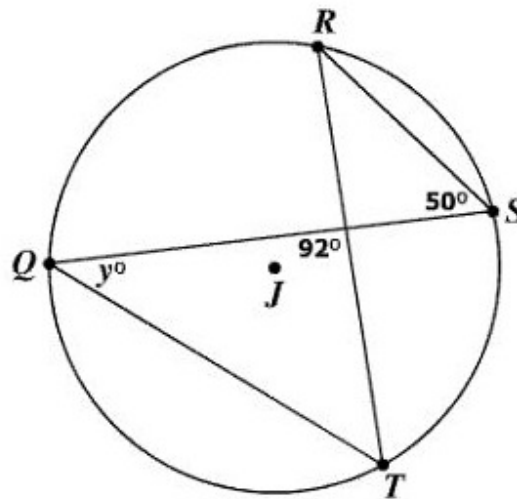Geometry Daily Quiz 02262020

We have to keep working on speed and accuracy.

Question 1.
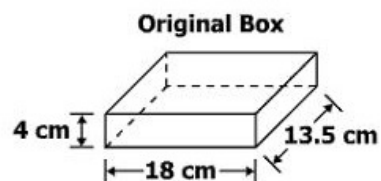
Given: Circle J

What is the value of y ?

- A 38
- B 50
- C 88
- D 92

Question 2

A cell phone box in the shape of a rectangular prism is shown. The height of the box is 4 cm.

Original Box
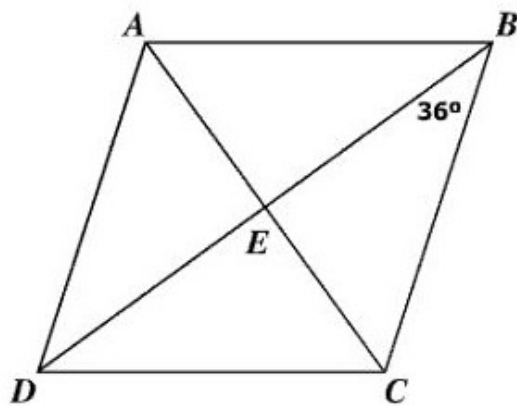

4 cm ⟷ 13.5 cm |←18 cm→|

The height of the original box will be increased by 3.5 centimeters so a new instruction manual and an extra battery can be included. Which is closest to the total surface area of the new box?

- A 479 cm²
- B 707 cm²
- C 738 cm²
- D 959 cm²

Question 3.

Parallelogram $ABCD$ is a rhombus with $m\angle EBC = 36°$.

What is the $m\angle DAE$?
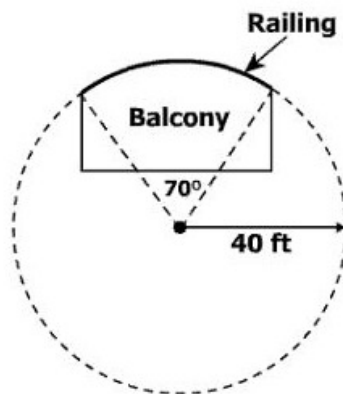
- A 36°
- B 54°
- C 108°
- D 144°

Question 4.

Circle O has a center at ($^-$2, $^-$2) and a diameter of 10 units.

Which point lies on circle O ?

○ **A** ($^-$6, $^-$5)

○ **B** ($^-$2, $^-$2)

○ **C** (6, 4)

○ **D** (8, 8)

Question 5.

An architect used this diagram to design a curved balcony. She drew a circle with a radius of 40 feet and a central angle of 70° to determine the length of railing needed for the balcony.
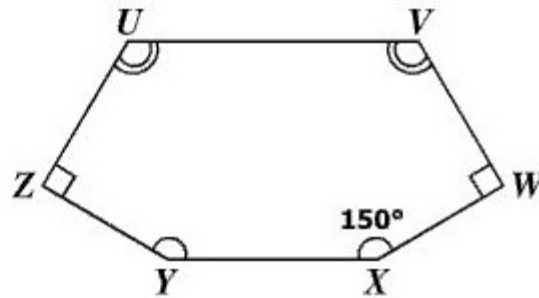

Which is closest to the length of railing needed for the curved section of the balcony?

○ **A** 24 ft

○ **B** 49 ft

○ **C** 251 ft

○ **D** 977 ft

Question 6.

A polygon is shown.

What is the measure of ∠U ?
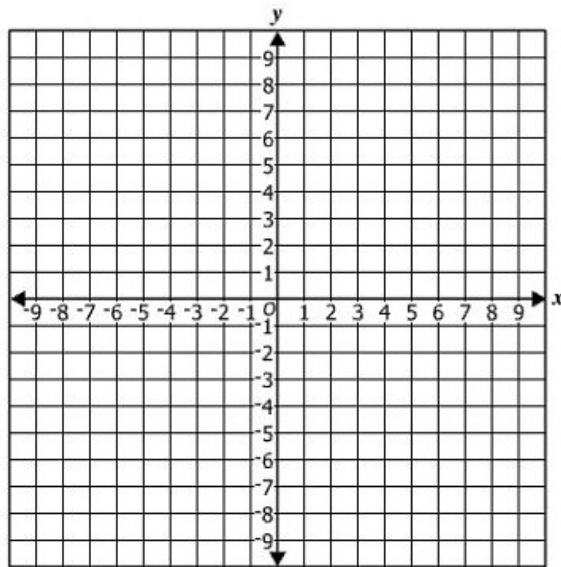
○ **A** 60°

○ **B** 90°

○ **C** 120°

○ **D** 240°

Question 7.

The volume of a cube is 64 cubic centimeters. What is the surface area of the cube?

○ **A** 16 cm²

○ **B** 96 cm²

○ **C** 256 cm²

○ **D** 384 cm²

Question 8.

The diagonals of rectangle *KLMN* intersect at the point (2, 1). One of the vertices of rectangle *KLMN* is located at (−4, 5).
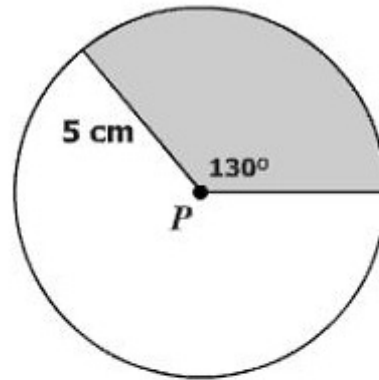

Which of the following could be the location of another vertex of this rectangle?

○ **A** (8, −3)

○ **B** (3, −1)

○ **C** (−2, 3)

○ **D** (−10, 9)

Question 9.

Given: Circle P

Which is closest to the area of the shaded sector of circle P ?

○ **A** 11 cm²

○ **B** 28 cm²

○ **C** 50 cm²

○ **D** 78 cm²

Question 10.

The ratio of the lengths of the radii of two spheres is 3:5. What is the ratio of the volumes of these two spheres?
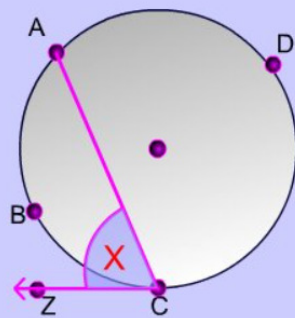
	:	

1	3	5	9	15	25	27	125

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 kilometer = 0.62 mile   1 cup = 8 fluid ounces
1 meter = 39.37 inches   1 pound = 16 ounces   1 pint = 2 cups
1 mile = 5280 feet   1 pound = 0.454 kilograms   1 quart = 2 pints
1 mile = 1760 yards   1 kilogram = 2.2 pounds   1 gallon = 4 quarts
1 mile = 1.609 kilometers   1 ton = 2000 pounds   1 gallon = 3.785 liters
    1 liter = 0.264 gallons
    1 liter = 1000 cubic centimeters

Triangle	$A = \dfrac{1}{2}bh$
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	$V = \dfrac{4}{3}\pi r^3$
Cone	$V = \dfrac{1}{3}\pi r^2 h$
Pyramid	$V = \dfrac{1}{3}Bh$

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