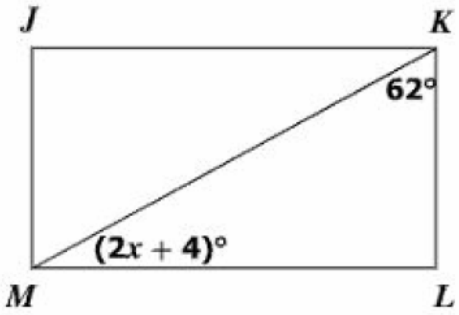
Geometry Daily Quiz 03112020

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.

Rectangle $JKLM$ is shown.

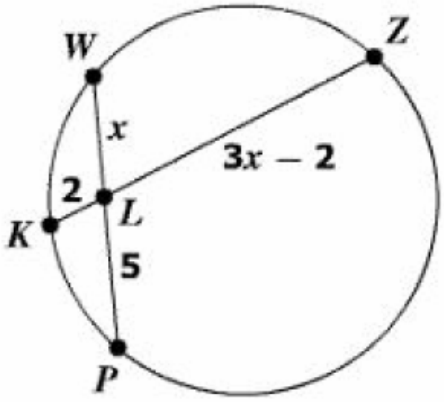


What is the value of x ?

- **A** 12
- **B** 28
- **C** 29
- **D** 43

Question 2

Chords $\overline{WP}$ and $\overline{KZ}$ intersect at point L in the circle shown.



What is the length of $\overline{KZ}$?

- **A** 7.5
- **B** 9
- **C** 10
- **D** 12

Question 3.

The height and radius of a cone are each multiplied by 3. What effect does this have on the volume of the cone?

The volume of the cone is multiplied by —

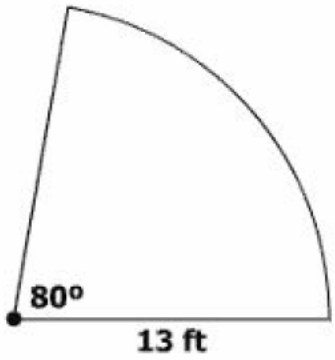
Question 4.

The equation $(x-1)^2+(y-3)^2=r^2$ represents circle A. The point $B(4, 7)$ lies on the circle. What is r, the length of the radius of circle A ?

- **A** $\sqrt{13}$
- **B** 5
- **C** $5\sqrt{5}$
- **D** $\sqrt{137}$

Question 5.

Rodrigo planted flowers in a section of a circular garden as shown.



Which is closest to the area of this section of the garden?

- **A** 118 sq ft
- **B** 82 sq ft
- **C** 29 sq ft
- **D** 18 sq ft

Question 6.

The height of a cylinder is 9.5 centimeters. The diameter of this cylinder is 1.5 centimeters longer than the height. Which is closest to the volume of the cylinder?

- **A** $1{,}150\pi$ cm^3
- **B** 287π cm^3
- **C** 165π cm^3
- **D** 105π cm^3

Question 7.

Which shape must have opposite sides that are parallel and congruent, and diagonals that are perpendicular bisectors of each other?

- **A** Parallelogram
- **B** Rectangle
- **C** Rhombus
- **D** Trapezoid

Question 8.

A circle has a center at $(4, -7)$ and a radius of 4 units. Create the equation of this circle.

The Equation of the Circle

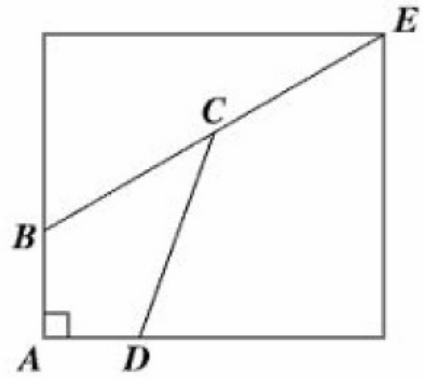
			=	

$(x - 4)$	$(x + 4)$
$(x - 4)^2$	$(x + 4)^2$
$(y - 7)$	$(y + 7)$
$(y - 7)^2$	$(y + 7)^2$
$+$	$-$
2^2	4^2

Question 9.

The figure represents the pattern for a quilt.

- $\angle ABC = 120°$
- $\angle ADC = (2x + 30)°$
- $\angle BCD = x°$

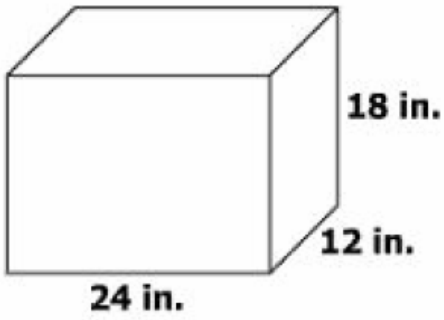


What is the measure of $\angle DCE$?

- **A** 150°
- **B** 140°
- **C** 120°
- **D** 110°

Question 10.

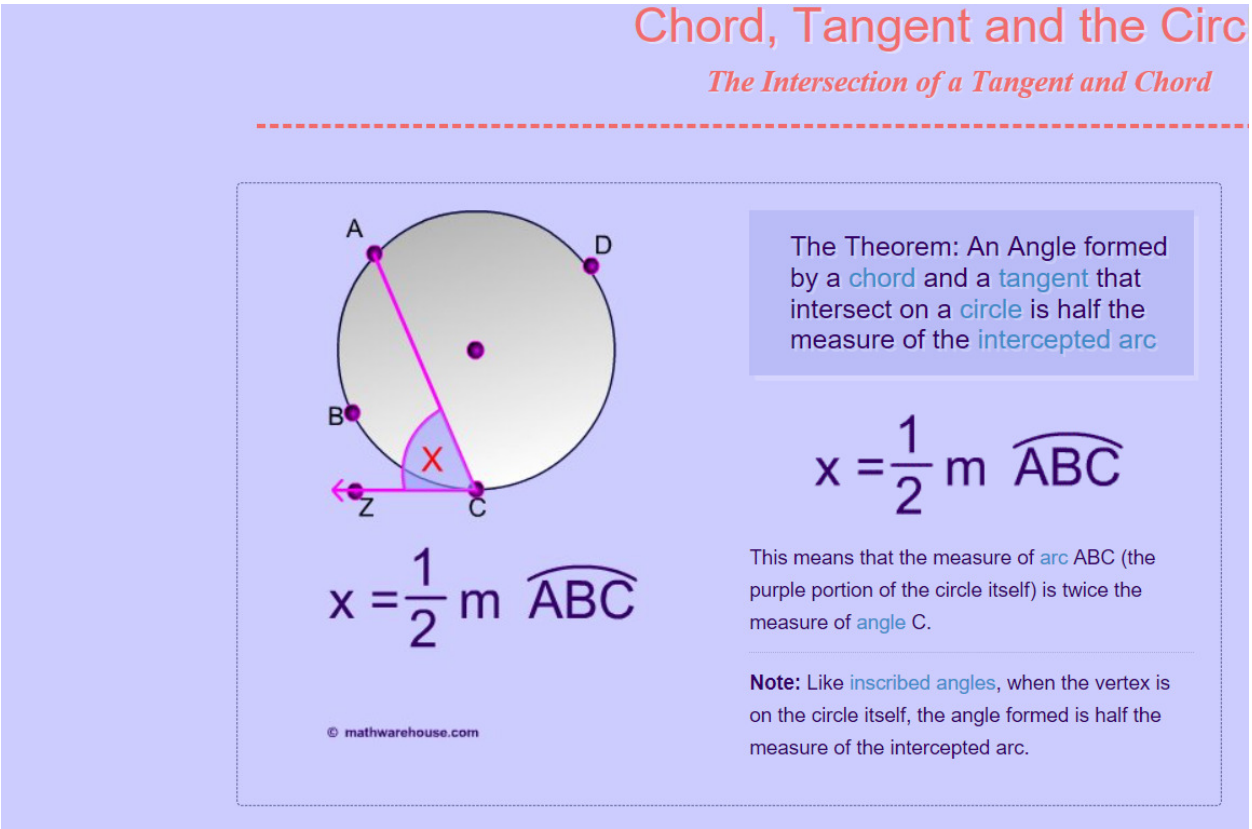
A rectangular prism is shown.



What is the surface area of the prism?

- **A** 156 sq in.
- **B** 936 sq in.
- **C** 1,872 sq in.
- **D** 5,184 sq in.

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