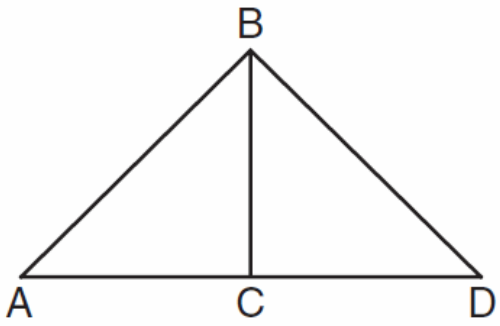
Geometry
Daily Quiz 11202019

Question 1.

Given: $\triangle ABD$, $\overline{BC}$ is the perpendicular bisector of $\overline{AD}$



Which statement can *not* always be proven?

(1) $\overline{AC} \cong \overline{DC}$

(2) $\overline{BC} \cong \overline{CD}$

(3) $\angle ACB \cong \angle DCB$

(4) $\triangle ABC \cong \triangle DBC$

Question 2.

Given the statement:

One is a prime number.

What is the negation and the truth value of the negation?

(1) One is not a prime number; true

(2) One is not a prime number; false

(3) One is a composite number; true

(4) One is a composite number; false

Question 3.

Triangle ABC has the coordinates $A(1,2)$, $B(5,2)$, and $C(5,5)$. Triangle ABC is rotated 180° about the origin to form triangle $A'B'C'$. Triangle $A'B'C'$ is

(1) acute
(2) isosceles
(3) obtuse
(4) right

Question 4.

What is an equation of the circle with center $(-5,4)$ and a radius of 7?

(1) $(x - 5)^2 + (y + 4)^2 = 14$
(2) $(x - 5)^2 + (y + 4)^2 = 49$
(3) $(x + 5)^2 + (y - 4)^2 = 14$
(4) $(x + 5)^2 + (y - 4)^2 = 49$

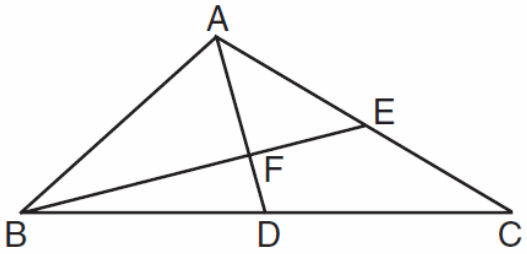
Question 5.

In $\triangle ABC$, $\angle A \cong \angle B$ and $\angle C$ is an obtuse angle. Which statement is true?

(1) $\overline{AC} \cong \overline{AB}$ and $\overline{BC}$ is the longest side.
(2) $\overline{AC} \cong \overline{BC}$ and $\overline{AB}$ is the longest side.
(3) $\overline{AC} \cong \overline{AB}$ and $\overline{BC}$ is the shortest side.
(4) $\overline{AC} \cong \overline{BC}$ and $\overline{AB}$ is the shortest side.

Question 6.

In the diagram of $\triangle ABC$ below, medians $\overline{AD}$ and $\overline{BE}$ intersect at point F.



If $AF = 6$, what is the length of $\overline{FD}$?

(1) 6

(2) 2

(3) 3

(4) 9

Question 7.

A sewing club is making a quilt consisting of 25 squares with each side of the square measuring 30 centimeters. If the quilt has five rows and five columns, what is the perimeter of the quilt?

A 150 cm

B 300 cm

C 600 cm

D 900 cm

Question 8.

The minute hand of a clock is 5 inches long. What is the area of the circle, in square inches, created as the hand sweeps an hour?

A 10π

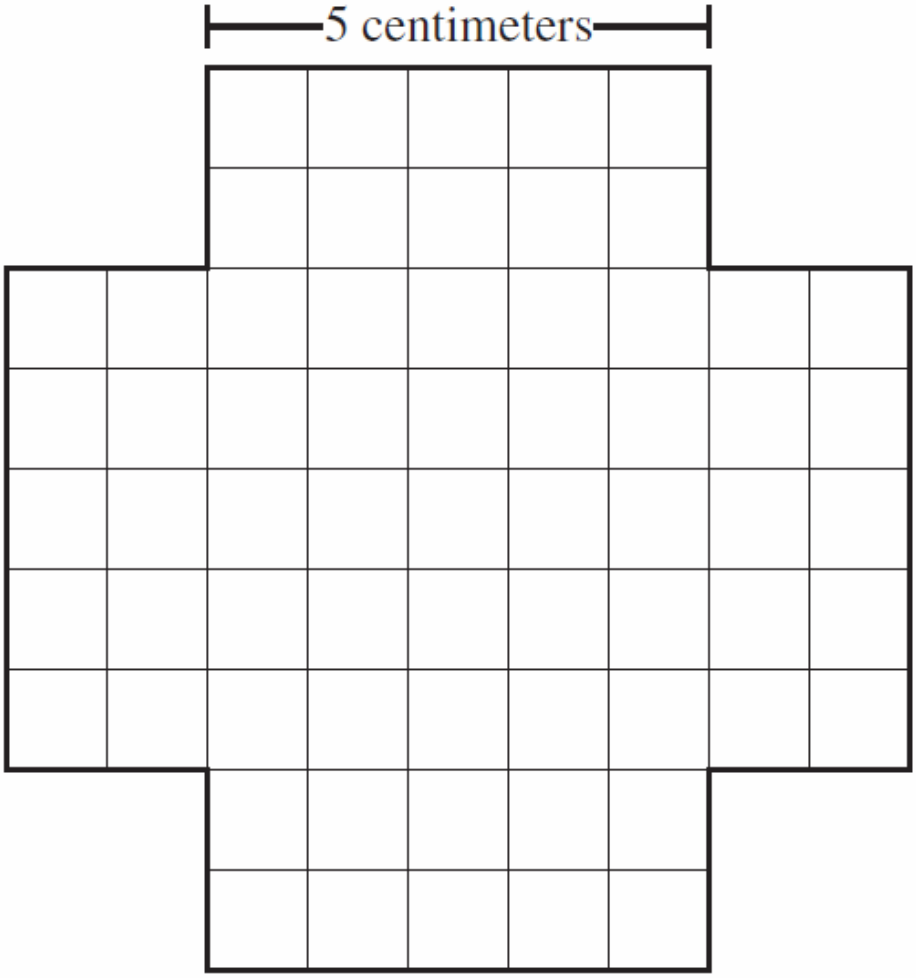
B 20π

C 25π

D 100π

Question 9.

38 **The four sides of this figure will be folded up and taped to make an open box.**



What will be the volume of the box?

A 50 cm^3

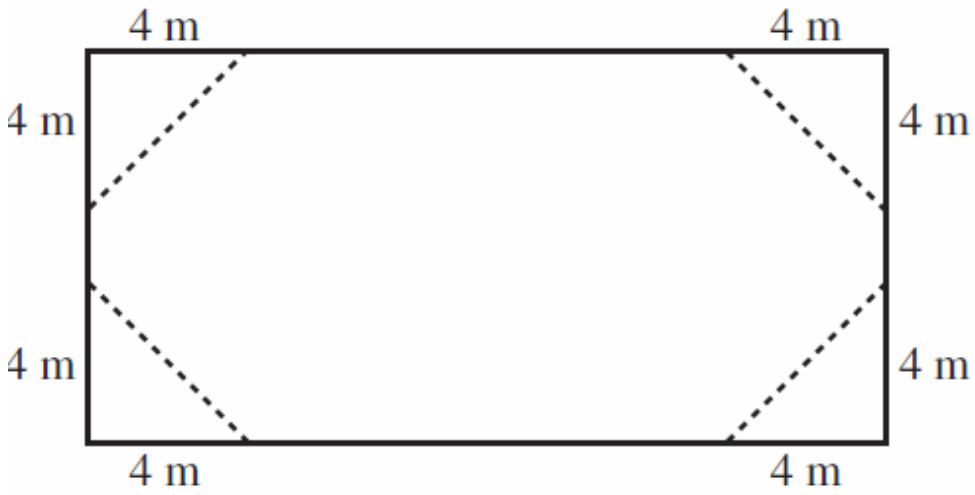
B 75 cm^3

C 100 cm^3

D 125 cm^3

Question 10.

The rectangle shown below has length 20 meters and width 10 meters.



If four triangles are removed from the rectangle as shown, what will be the area of the remaining figure?

A 136 m^2

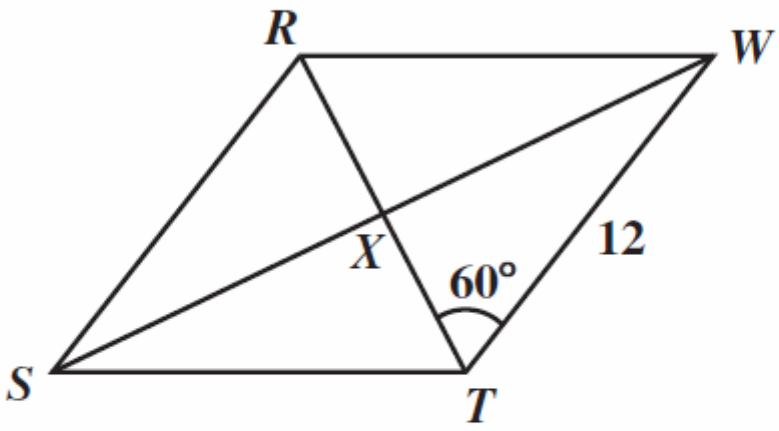
B 144 m^2

C 168 m^2

D 184 m^2

Bonus

If *RSTW* is a rhombus, what is the area of $\triangle WXT$?



A $18\sqrt{3}$

B $36\sqrt{3}$

C 36

D 48

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

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942260 1 2 3 4 5 A B C D E Printed in the USA ISD10957