Geometry Daily Quiz
01032020

Question 1.

$\overline{CD}$ has an endpoint at $(2, -1)$ and a midpoint at $(8, 3)$. Which measure is closest to the length of $\overline{CD}$?

A 20.4 units

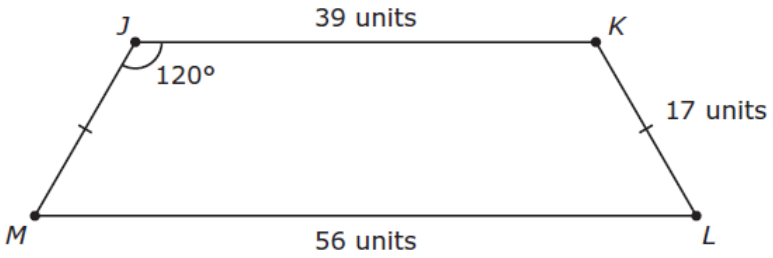
B 8.9 units

C 14.4 units

D 11.7 units

Question 2.

Isosceles trapezoid *JKLM* is shown below.



If the dimensions of trapezoid *JKLM* are multiplied by a scale factor of *f* to create trapezoid *J′K′L′M′*, which statement is true?

F Trapezoid *J′K′L′M′* contains two base angles measuring 30° each.

G The longer base of trapezoid *J′K′L′M′* is 56*f* units.

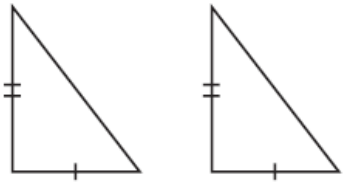
H The bases of trapezoid *J′K′L′M′* have lengths of 22 units and 39 units.

J Trapezoid *J′K′L′M′* contains two base angles measuring (120*f*)° each.

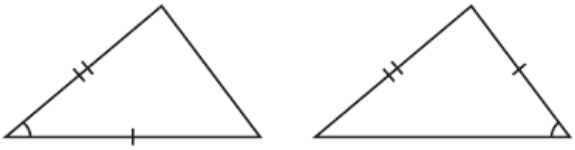
Question 3.

Which pair of triangles has enough given information to prove that the triangles are congruent?

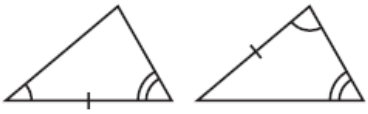
A



B



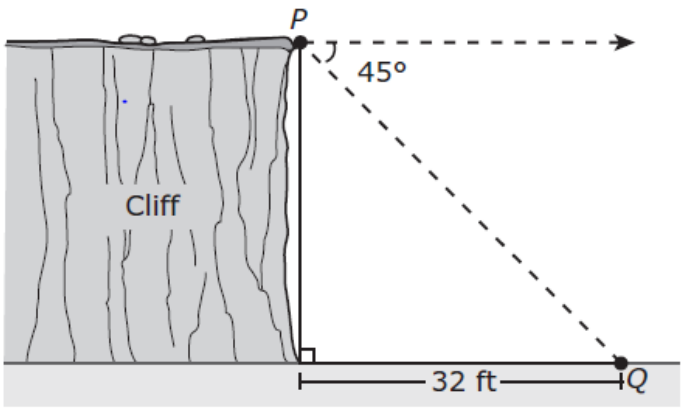
C



D None of these

Question 4.

In the diagram below, the angle of depression from P to Q is 45°.



Not drawn to scale

Which of the following is closest to the distance between P and Q?

F 45.3 ft

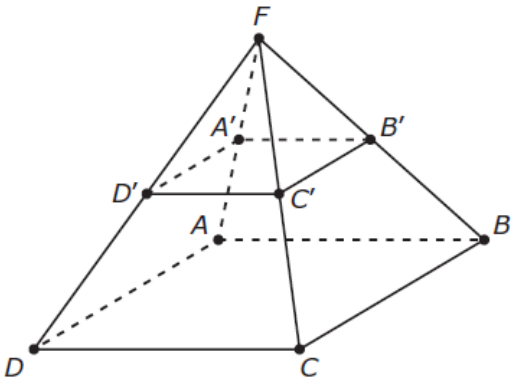
G 22.6 ft

H 55.4 ft

J 18.5 ft

Question 5.

The rectangular pyramid shown below was intersected by a plane parallel to base $ABCD$ to form quadrilateral $A'B'C'D'$.



Based on this information, which statement cannot be proved true?

A $ABCD \sim A'B'C'D'$

B $\frac{AF}{A'F} = \frac{BF}{B'F}$

C $\angle AA'D' \cong \angle BB'A'$

D $\angle BCD \cong \angle B'C'D'$

Question 6.

Five spheres are being painted for a display at a store. If the diameter of each sphere is 7 centimeters, which value is closest to the total surface area that will be painted?

F 770 cm^2

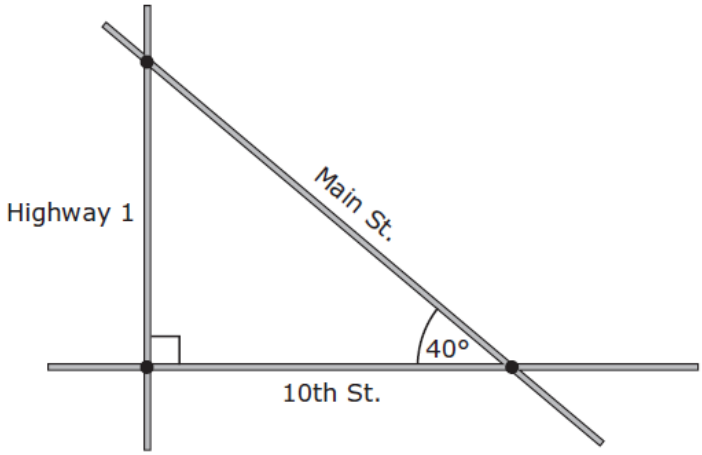
G 154 cm^2

H 192 cm^2

J 440 cm^2

Question 7.

On the map below, Main Street, 10th Street, and Highway 1 intersect to form a right triangle.



The distance between 10th Street and Main Street along Highway 1 is 5.6 mi. Which measure is closest to the length of Main Street from Highway 1 to 10th Street?

A 8.7 mi

B 3.6 mi

C 4.7 mi

D 7.3 mi

Question 8.

For triangles *ABC* and *DEF*, $\angle A \cong \angle D$ and $\angle B \cong \angle E$. Based on this information, which statement is a reasonable conclusion?

F $\angle C \cong \angle D$ because they are corresponding angles of congruent triangles.

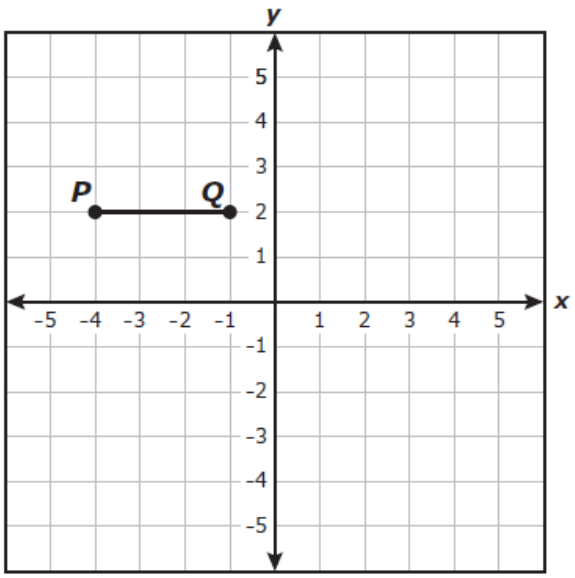
G $\overline{CA} \cong \overline{FD}$ because they are corresponding parts of congruent triangles.

H $\angle C \cong \angle F$ because they are corresponding angles of similar triangles.

J $\overline{AB} \cong \overline{DE}$ because they are corresponding parts of similar triangles.

Question 9.

$\overline{PQ}$ is shown on the coordinate grid below. The coordinates of P and Q are integers.



Point (x, y) lies on the perpendicular bisector of $\overline{PQ}$. What is the value of x?

Record your answer and fill in the bubbles on your answer document.

Question 10.

A conditional statement is given below.

> If two interior angles of a triangle are acute,
> then the third interior angle must be obtuse.

Which of the following best describes this statement?

A This statement is true because all obtuse triangles have two acute interior angles.

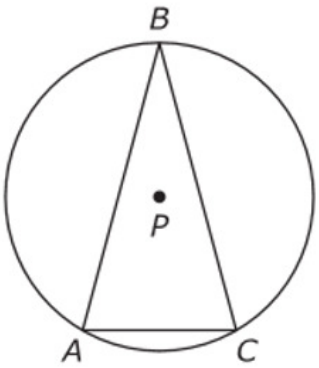
B This statement is false because the third interior angle must also be acute.

C This statement is true because a triangle can have at most one interior obtuse angle.

D This statement is false because the third interior angle can be acute, right, or obtuse.

Question 11.Bonus

The figure shows a circle with center P and inscribed isosceles $\triangle ABC$.



If $\overline{AC}$ has the same length as the radius of the circle, what is the measure of $\angle ABC$?

Enter your answer in the box.

[ ] degrees

You must show how you get your answer to get full points.

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	$C = \pi d \text{ or } C = 2\pi r$
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