Geometry
Daily Quiz 11222019

Question 1.

What is the difference between the sum of the measures of the interior angles of a regular pentagon and the sum of the measures of the exterior angles of a regular pentagon?

(1) 36
(2) 72
(3) 108
(4) 180

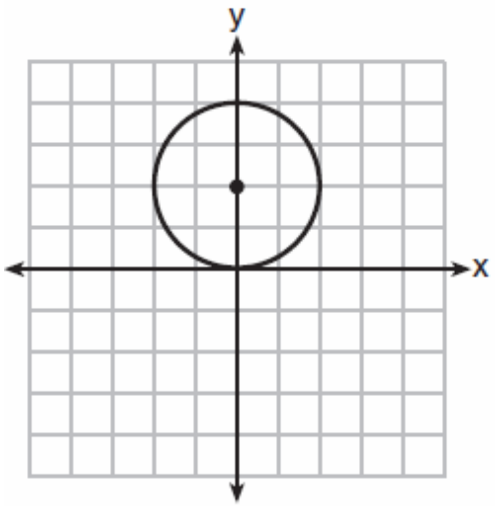
Question 2.

If line ℓ is perpendicular to distinct planes $\mathcal{P}$ and Q, then planes $\mathcal{P}$ and Q

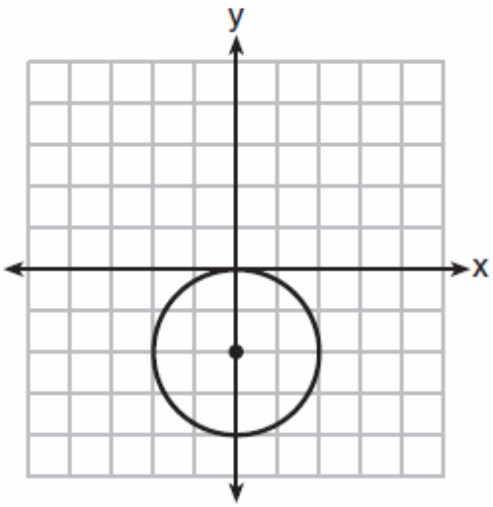
(1) are parallel
(2) contain line ℓ
(3) are perpendicular
(4) intersect, but are *not* perpendicular

Question 3.

Which graph represents a circle whose equation is $x^2 + (y - 2)^2 = 4$?



(1)



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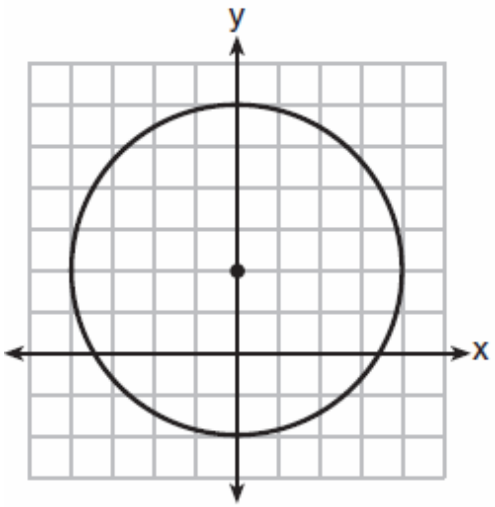

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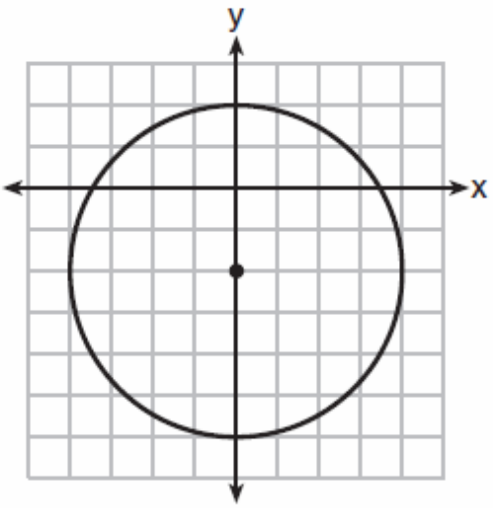
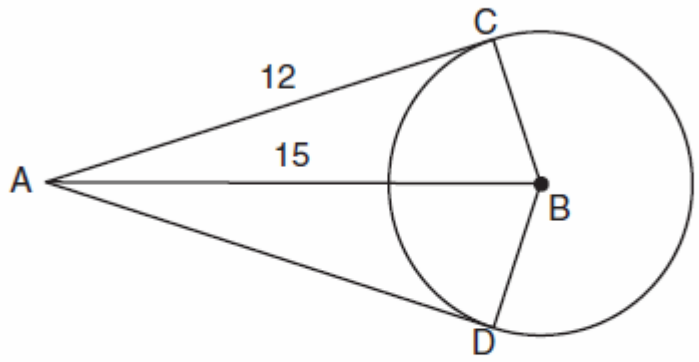


(4)

Question 4.

In the diagram below, $\overline{AC}$ and $\overline{AD}$ are tangent to circle B at points C and D, respectively, and $\overline{BC}$, $\overline{BD}$, and $\overline{BA}$ are drawn.



(Not drawn to scale)

If $AC = 12$ and $AB = 15$, what is the length of $\overline{BD}$?

(1) 5.5

(2) 9

(3) 12

(4) 18

Question 5.

Triangle ABC has vertices $A(0,0)$, $B(6,8)$, and $C(8,4)$. Which equation represents the perpendicular bisector of $\overline{BC}$?

(1) $y = 2x - 6$

(2) $y = -2x + 4$

(3) $y = \frac{1}{2}x + \frac{5}{2}$

(4) $y = -\frac{1}{2}x + \frac{19}{2}$

Question 6.

Find, in simplest radical form, the length of the line segment with endpoints whose coordinates are $(-1,4)$ and $(3,-2)$.

Show how you got your answer.

Question 7.

A regular polygon has 12 sides. What is the measure of each exterior angle?

A $15°$

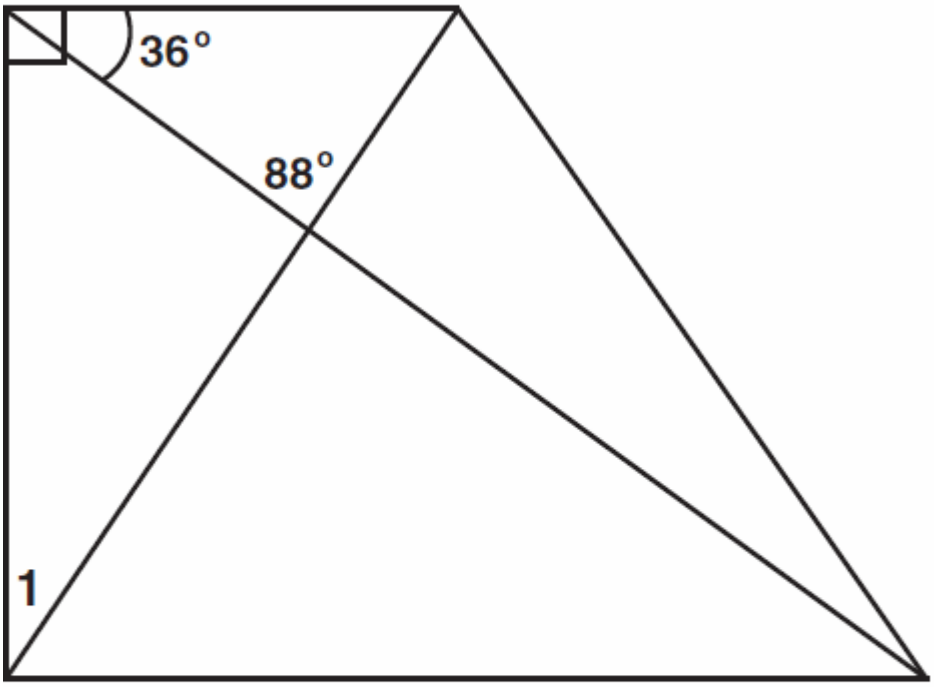
B $30°$

C $45°$

D $60°$

Question 8.

What is $m\angle 1$?



A 34°

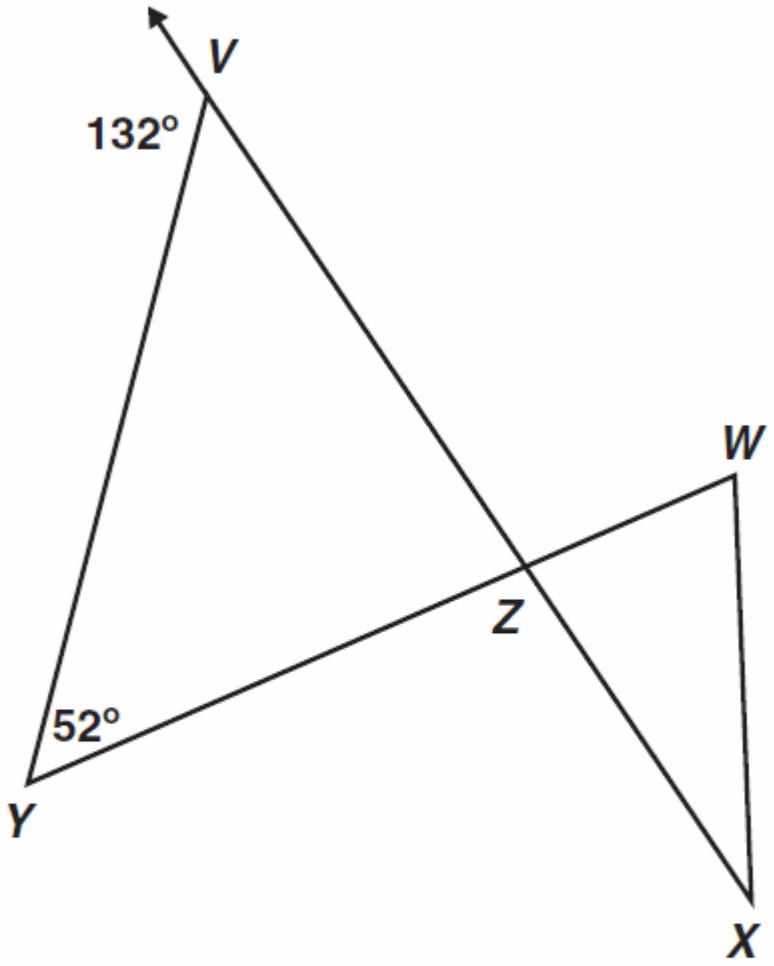
B 56°

C 64°

D 92°

Question 9.

What is $m\angle WZX$?



A 80°

B 90°

C 100°

D 110°

Question 10.

What is the measure of an exterior angle of a regular hexagon?

A $30°$

B $60°$

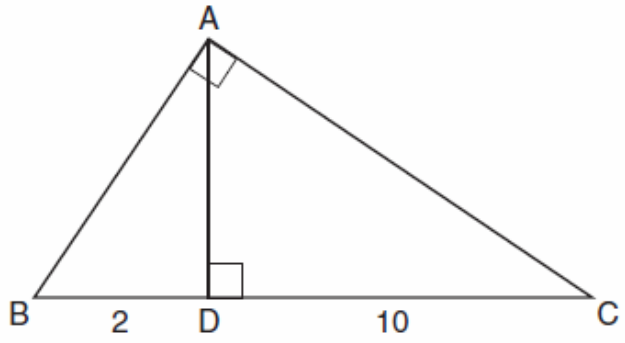
C $120°$

D $180°$

Explain how you arrived at your answer. Just looking it up on the internet is not enough.

Bonus

Triangle ABC shown below is a right triangle with altitude $\overline{AD}$ drawn to the hypotenuse $\overline{BC}$.



If $BD = 2$ and $DC = 10$, what is the length of $\overline{AB}$?

(1) $2\sqrt{2}$

(2) $2\sqrt{5}$

(3) $2\sqrt{6}$

(4) $2\sqrt{30}$

Explain how you arrived at your answer.

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