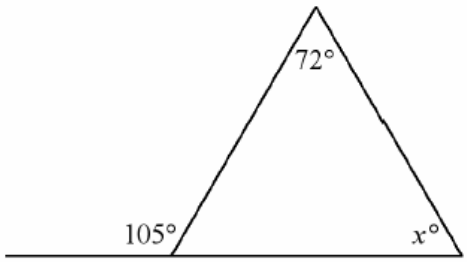
Geometry
Daily Quiz 10242019

Question 1.

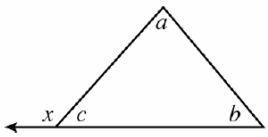
What is the value of x?



a. 33 b. 75 c. 147 d. 162

Question 2.

In the diagram below, which expression represents x, the degree measure of the exterior angle shown?



a. $a + b$ b. $a - b$ c. $a + c$ d. $b + c$

Question 3.

Triangle ABC has vertices $A(0,0)$, $B(3,2)$, and $C(0,4)$. This triangle may be classified as

(1) equilateral
(2) isosceles
(3) right
(4) scalene

Question 4.

In rhombus $ABCD$, the diagonals $\overline{AC}$ and $\overline{BD}$ intersect at E. If $AE = 5$ and $BE = 12$, what is the length of $\overline{AB}$?

(1) 7
(2) 10
(3) 13
(4) 17

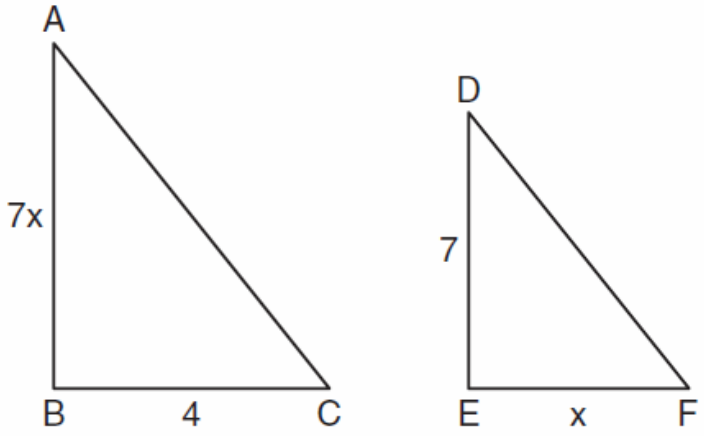
Question 5.

In $\triangle DEF$, $m\angle D = 3x + 5$, $m\angle E = 4x - 15$, and $m\angle F = 2x + 10$. Which statement is true?

(1) $DF = FE$
(2) $DE = FE$
(3) $m\angle E = m\angle F$
(4) $m\angle D = m\angle F$

Question 6.

As shown in the diagram below, $\triangle ABC \sim \triangle DEF$, $AB = 7x$, $BC = 4$, $DE = 7$, and $EF = x$.

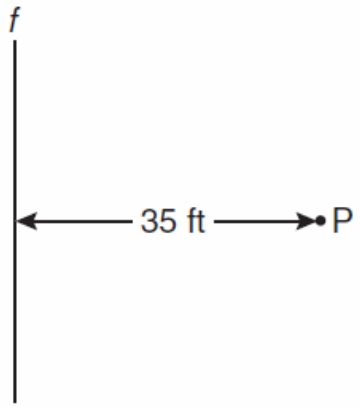


What is the length of $\overline{AB}$?

(1) 28
(2) 2
(3) 14
(4) 4

Question 7.

A man wants to place a new bird bath in his yard so that it is 30 feet from a fence, f, and also 10 feet from a light pole, P. As shown in the diagram below, the light pole is 35 feet away from the fence.



How many locations are possible for the bird bath?

(1) 1

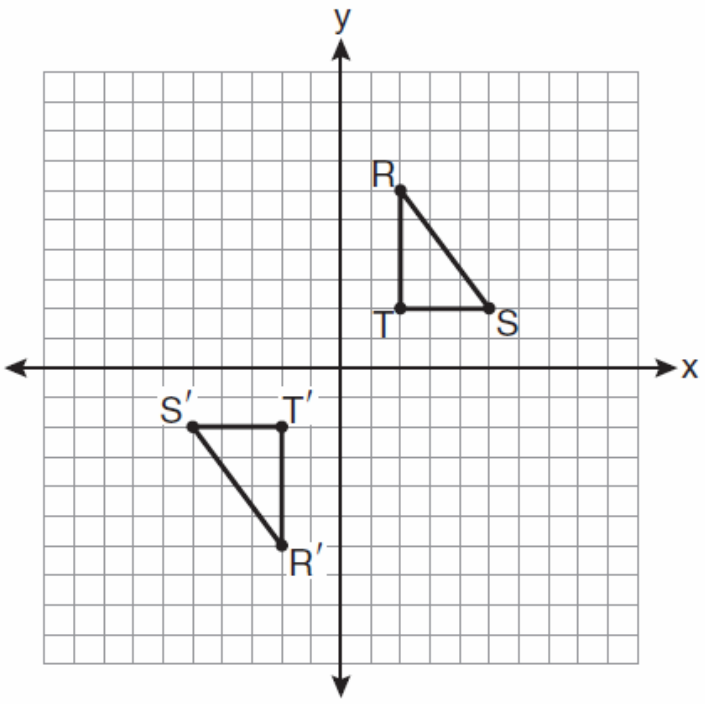
(2) 2

(3) 3

(4) 0

Question 8.

As shown on the graph below, $\triangle R'S'T'$ is the image of $\triangle RST$ under a single transformation.



Which transformation does this graph represent?

(1) glide reflection
(2) line reflection
(3) rotation
(4) translation

Question 9.

Which line is parallel to the line whose equation is $4x + 3y = 7$ and also passes through the point $(-5,2)$?

(1) $4x + 3y = -26$

(2) $4x + 3y = -14$

(3) $3x + 4y = -7$

(4) $3x + 4y = 14$

Question 10.

If the vertex angles of two isosceles triangles are congruent, then the triangles must be

(1) acute

(2) congruent

(3) right

(4) similar

Bonus Question.

Line segment AB with endpoints $A(4, 16)$ and $B(20, 4)$ lies in the coordinate plane. The segment will be dilated with a scale factor of $\frac{3}{4}$ and a center at the origin to create $\overline{A'B'}$. What will be the length of $\overline{A'B'}$?

A. 15

B. 12

C. 5

D. 4

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