Geometry
Daily Quiz 11152019

Question 1.

Which set of numbers could represent the lengths of the sides of a right triangle?

(1) {2, 3, 4}
(2) {5, 9, 13}
(3) {7, 7, 12}
(4) {8, 15, 17}

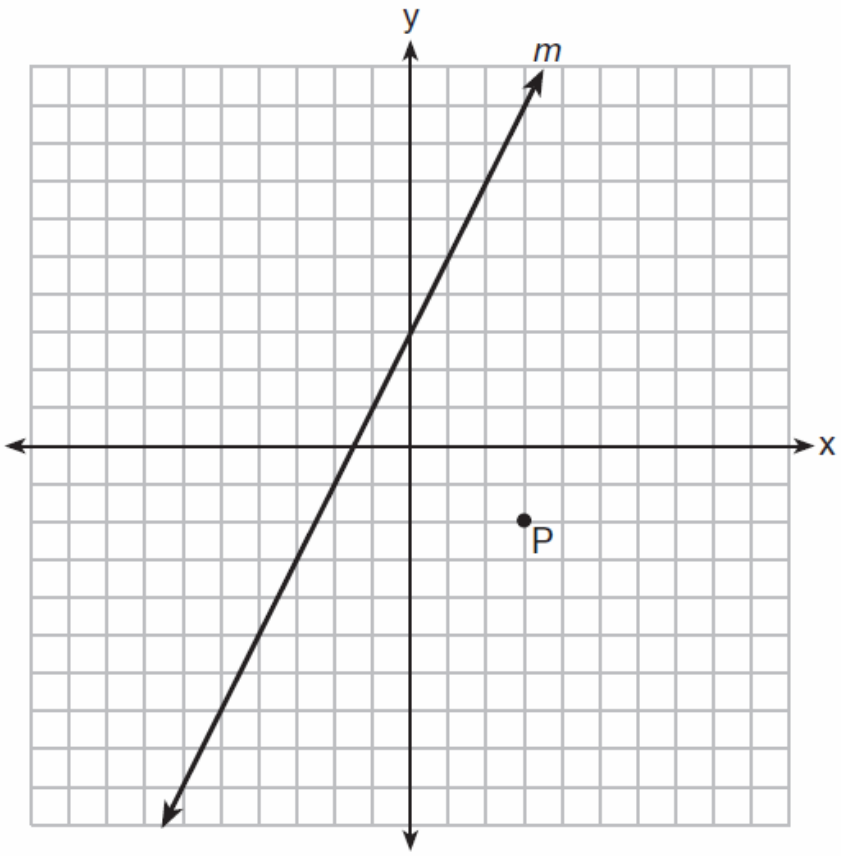
Question 2.

In quadrilateral *ABCD*, the diagonals bisect its angles. If the diagonals are *not* congruent, quadrilateral *ABCD* must be a

(1) square
(2) rectangle
(3) rhombus
(4) trapezoid

Question 3.

Line m and point P are shown in the graph below.



Which equation represents the line passing through P and parallel to line m?

(1) $y - 3 = 2(x + 2)$

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

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

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

Question 4.

Which compound statement is true?

(1) A square has four sides or a hexagon has eight sides.

(2) A square has four sides and a hexagon has eight sides.

(3) If a square has four sides, then a hexagon has eight sides.

(4) A square has four sides if and only if a hexagon has eight sides.

Question 5.

In $\triangle CAT$, $m\angle C = 65$, $m\angle A = 40$, and B is a point on side $\overline{CA}$, such that $\overline{TB} \perp \overline{CA}$. Which line segment is shortest?

(1) $\overline{CT}$

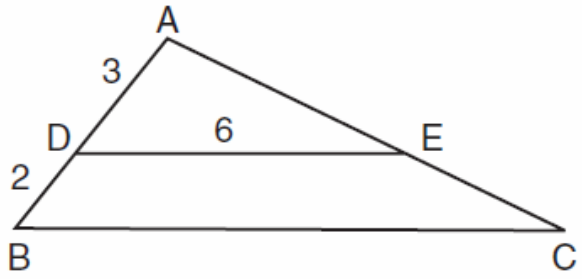
(2) $\overline{BC}$

(3) $\overline{TB}$

(4) $\overline{AT}$

Question 6.

In the diagram of $\triangle ABC$ below, $\overline{DE} \parallel \overline{BC}$, $AD = 3$, $DB = 2$, and $DE = 6$.



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

(1) 12

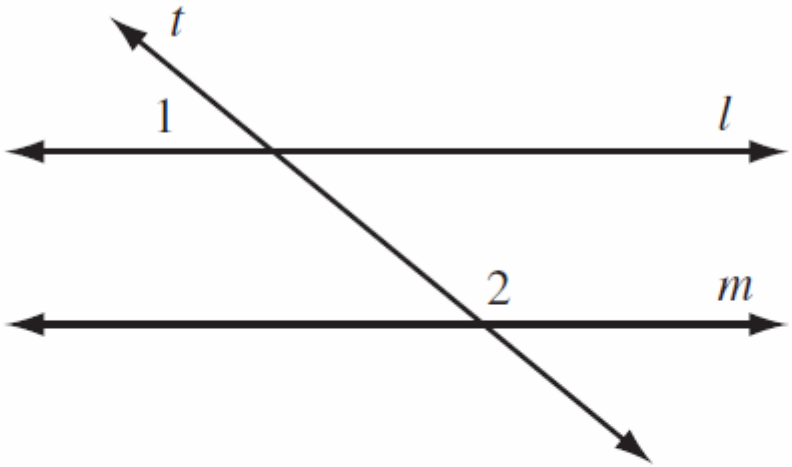
(2) 10

(3) 8

(4) 4

Question 7.

In the accompanying diagram, parallel lines *l* and *m* are cut by transversal *t*.



Which statement about angles 1 and 2 *must* be true?

A $\angle 1 \cong \angle 2$.

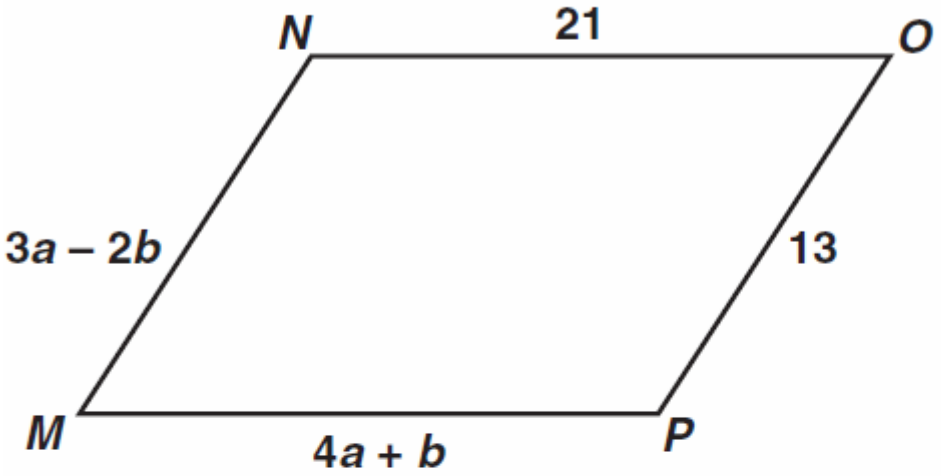
B $\angle 1$ is the complement of $\angle 2$.

C $\angle 1$ is the supplement of $\angle 2$.

D $\angle 1$ and $\angle 2$ are right angles.

Question 8.

What values of a and b make quadrilateral $MNOP$ a parallelogram?



A $a = 1, b = 5$

B $a = 5, b = 1$

C $a = \frac{11}{7}, b = \frac{34}{7}$

D $a = \frac{34}{7}, b = \frac{11}{7}$

Question 9.

Quadrilateral *ABCD* is a parallelogram. If adjacent angles are congruent, which statement must be true?

A Quadrilateral *ABCD* is a square.

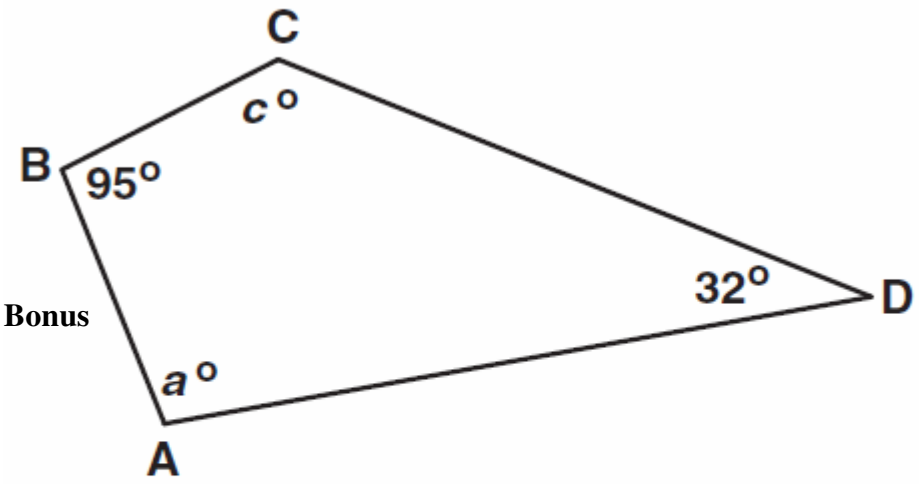
B Quadrilateral *ABCD* is a rhombus.

C Quadrilateral *ABCD* is a rectangle.

D Quadrilateral *ABCD* is an isosceles trapezoid.

Question 10.

For the quadrilateral shown below, what is $m\angle a + m\angle c$?



Bonus

A 53°

B 137°

C 180°

D 233°

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