Geometry
Daily Quiz 11212019

Question 1.

If $\triangle ABC \cong \triangle JKL \cong \triangle RST$, then $\overline{BC}$ must be congruent to

(1) $\overline{JL}$

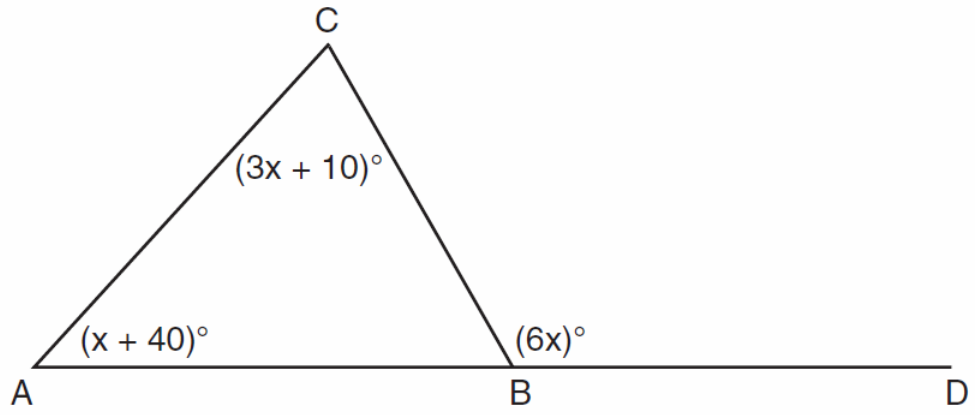
(2) $\overline{JK}$

(3) $\overline{ST}$

(4) $\overline{RS}$

Question 2.

In the diagram of $\triangle ABC$ below, $\overline{AB}$ is extended to point D.



If $m\angle CAB = x + 40$, $m\angle ACB = 3x + 10$, and $m\angle CBD = 6x$, what is $m\angle CAB$?

(1) 13

(2) 25

(3) 53

(4) 65

Question 3.

The bases of a right triangular prism are $\triangle ABC$ and $\triangle DEF$. Angles A and D are right angles, $AB = 6$, $AC = 8$, and $AD = 12$. What is the length of edge $\overline{BE}$?

(1) 10

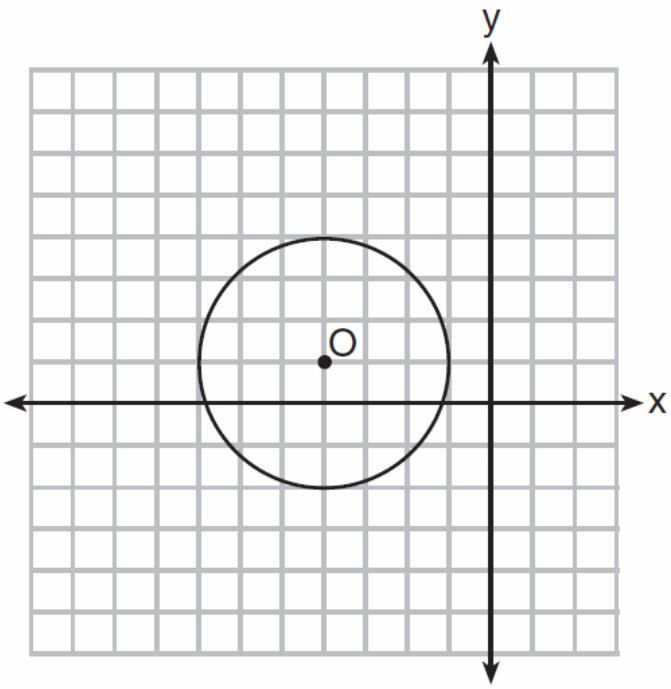
(2) 12

(3) 14

(4) 16

Question 4.

What is the equation of circle O shown in the diagram below?



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

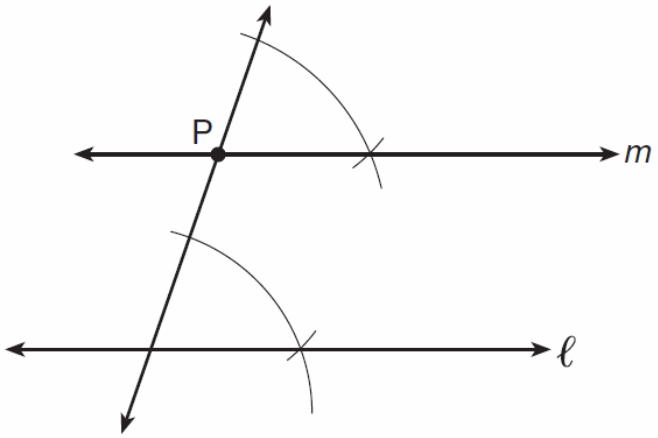
(2) $(x - 4)^2 + (y + 1)^2 = 3$

(3) $(x + 4)^2 + (y - 1)^2 = 9$

(4) $(x - 4)^2 + (y + 1)^2 = 9$

Question 5.

The diagram below shows the construction of line m, parallel to line ℓ, through point P.



Which theorem was used to justify this construction?

(1) If two lines are cut by a transversal and the alternate interior angles are congruent, the lines are parallel.

(2) If two lines are cut by a transversal and the interior angles on the same side are supplementary, the lines are parallel.

(3) If two lines are perpendicular to the same line, they are parallel.

(4) If two lines are cut by a transversal and the corresponding angles are congruent, they are parallel.

Question 6.

A student wrote the following equations:

$$3y + 6 = 2x$$
$$2y - 3x = 6$$

The lines represented by these equations are

(1) parallel

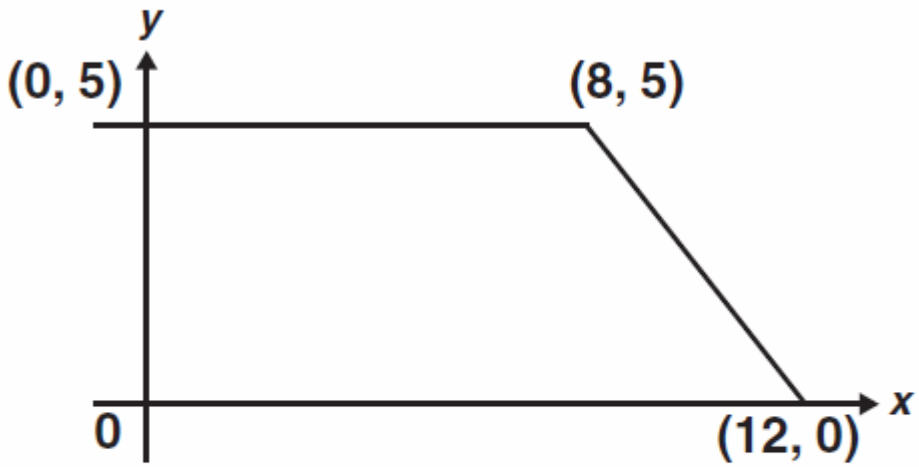
(2) the same line

(3) perpendicular

(4) intersecting, but *not* perpendicular

Question 7.

What is the area, in square units, of the trapezoid shown below?



A 37.5

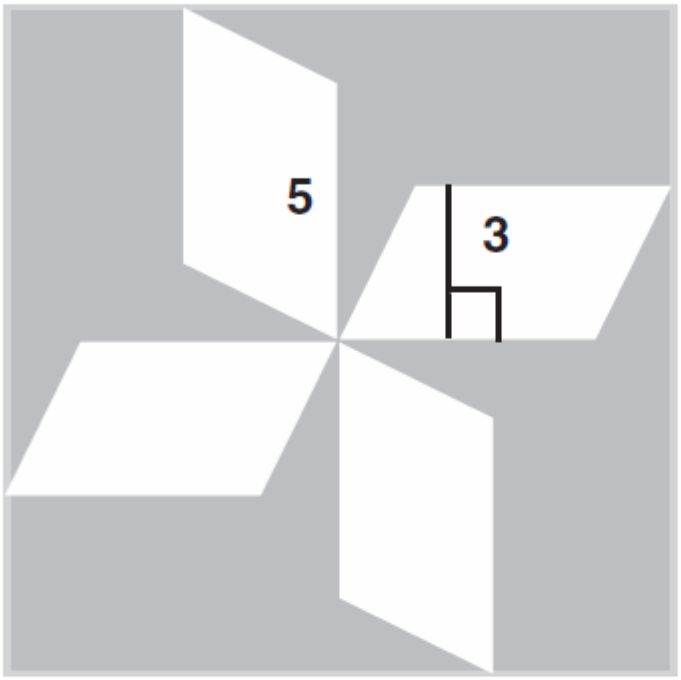
B 42.5

C 50

D 100

Question 8.

The figure below is a square with four congruent parallelograms inside.



What is the area, in square units, of the shaded portion?

A 60

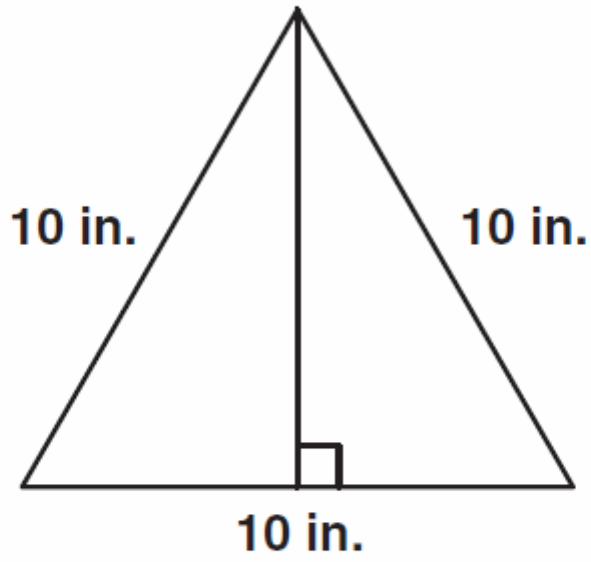
B 84

C 114

D 129

Question 9.

What is the area, in square inches (in.), of the triangle below?



A 25

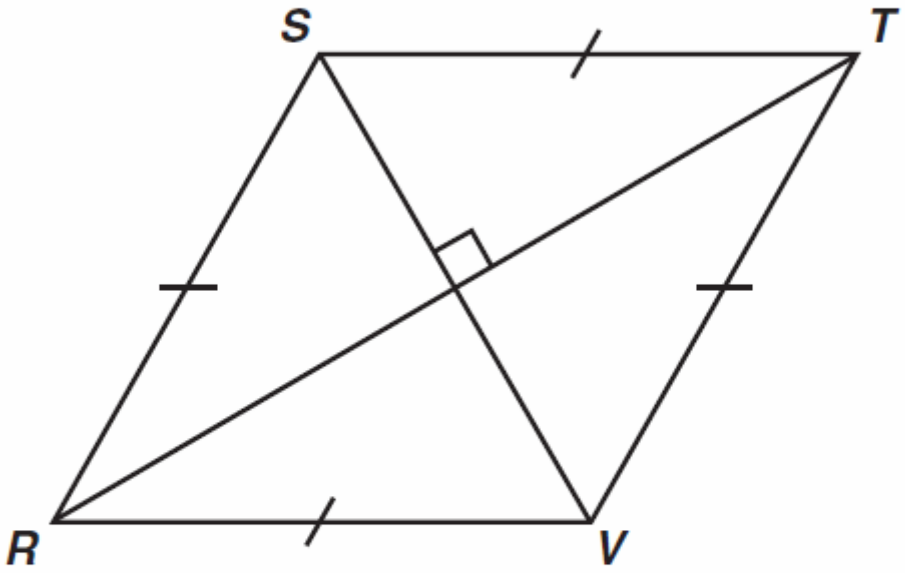
B $25\sqrt{3}$

C 50

D $50\sqrt{3}$

Question 10.

What is the area, in square centimeters, of rhombus $RSTV$ if $RT = 16$ cm and $SV = 12$ cm?



A 40

B 48

C 96

D 192

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