Geometry
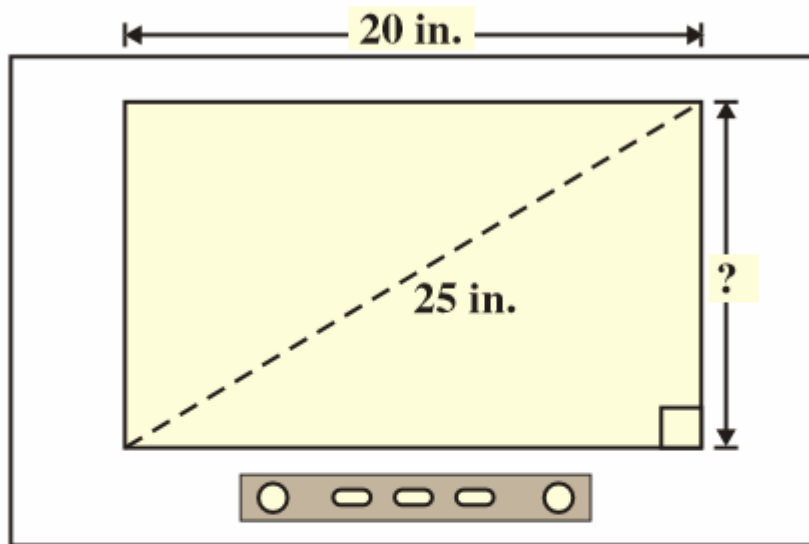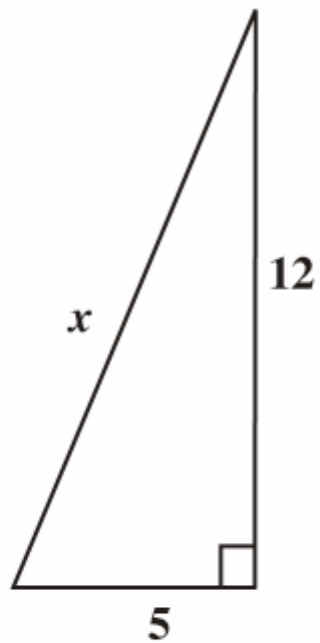**Daily Quiz 12162019**

Question 1.

The size of a television screen is measured along its diagonal. A 25-inch (in.) television screen is shown below.

20 in.

25 in.

?

If the television screen shown above is 20 inches wide, what is the height, in inches, of the screen?

A $\sqrt{45}$

B $\sqrt{90}$

C 10

D 15

Question 2.
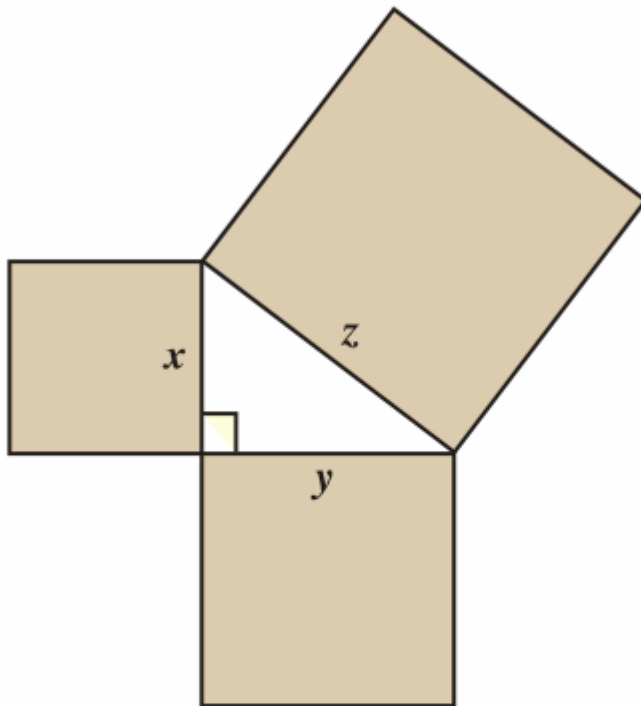

. **What is the value of _x_ in the triangle shown above?**

    A   11
    B   13
    C   17
    D 169

Question 3.

. **In the drawing below, the figure formed by the squares with sides that are labeled x, y, and z is a right triangle.**
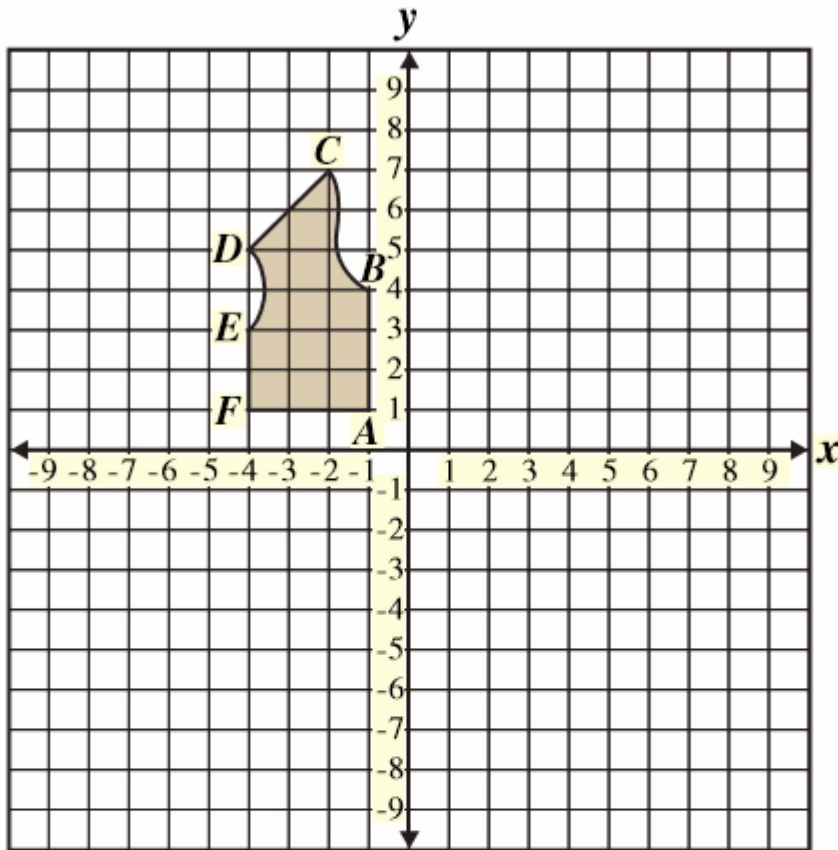

Which equation is true for all values of x, y, and z?

A $x + y = z$

B $x^2 + y^2 = z^2$

C $x^2 \cdot y^2 = z^2$

D $\frac{1}{2}xy = z$

Question 4.

A clothing company created the following diagram for a vest.

To show the other side of the vest, the company will reflect the drawing across the y-axis. What will be the coordinates of C after the reflection?

A $(2, 7)$

B $(7, 2)$

C $(-2, -7)$

D $(-2, 7)$

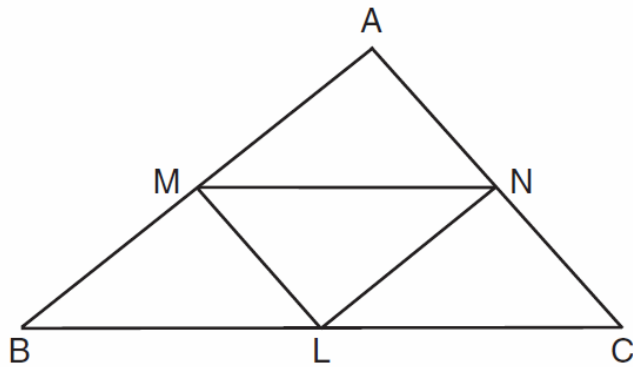Question 5.

A regular polygon with an exterior angle of 40° is a

(1) pentagon

(3) nonagon

(2) hexagon

(4) decagon

Question 6.

In $\triangle ABC$ shown below, L is the midpoint of $\overline{BC}$, M is the midpoint of $\overline{AB}$, and N is the midpoint of $\overline{AC}$.

If $MN = 8$, $ML = 5$, and $NL = 6$, the perimeter of trapezoid $BMNC$ is

(1) 26

(3) 30

(2) 28

(4) 35

Question 7.

The sum of the interior angles of a regular polygon is 720°. How many sides does the polygon have?

(1) 8   (3) 5

(2) 6   (4) 4

Question 8.

In the prism shown below, $\overline{AD} \perp \overline{AE}$ and $\overline{AD} \perp \overline{AB}$.

Which plane is perpendicular to $\overline{AD}$?

(1) *HEA*   (3) *EAB*

(2) *BAD*   (4) *EHG*

Question 9.

In $\triangle ABC$, $m\angle A = 65$ and $m\angle B$ is greater than $m\angle A$. The lengths of the sides of $\triangle ABC$ in order from smallest to largest are

(1) $\overline{AB}, \overline{BC}, \overline{AC}$

(2) $\overline{BC}, \overline{AB}, \overline{AC}$

(3) $\overline{AC}, \overline{BC}, \overline{AB}$

(4) $\overline{AB}, \overline{AC}, \overline{BC}$

Question 10.

Which equation represents a circle whose center is the origin and that passes through the point $(-4,0)$?

(1) $x^2 + y^2 = 8$

(2) $x^2 + y^2 = 16$

(3) $(x + 4)^2 + y^2 = 8$

(4) $(x + 4)^2 + y^2 = 16$

Bonus.

Part A

A circle in the xy-coordinate plane has the equation $x^2 + y^2 + 6y - 4 = 0$. If the equation of the circle is written in the form $x^2 + (y+k)^2 = c$, where k and c are constants, what is the value of k?

Enter your answer in the box.

[   ]

Part B

What is the radius of the circle?

○ A. 2

○ B. 4

○ C. $\sqrt{13}$

○ D. 13

You must show your working to get your points for this problem.

PARCC

Partnership for Assessment of
Readiness for College and Careers

High School Mathematics Assessment Reference Sheet

1 inch = 2.54 centimeters   1 kilometer = 0.62 mile   1 cup = 8 fluid ounces
1 meter = 39.37 inches   1 pound = 16 ounces   1 pint = 2 cups
1 mile = 5280 feet   1 pound = 0.454 kilograms   1 quart = 2 pints
1 mile = 1760 yards   1 kilogram = 2.2 pounds   1 gallon = 4 quarts
1 mile = 1.609 kilometers   1 ton = 2000 pounds   1 gallon = 3.785 liters
   1 liter = 0.264 gallons
   1 liter = 1000 cubic centimeters

Triangle	$A = \dfrac{1}{2}bh$
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	$V = \dfrac{4}{3}\pi r^3$
Cone	$V = \dfrac{1}{3}\pi r^2 h$
Pyramid	$V = \dfrac{1}{3}Bh$

Quadratic Formula	$x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Arithmetic Sequence	$a_n = a_1 + (n-1)d$
Geometric Sequence	$a_n = a_1 r^{n-1}$
Geometric Series	$S_n = \dfrac{a_1 - a_1 r^n}{1-r}$ where $r \neq 1$
Radians	1 radian $= \dfrac{180}{\pi}$ degrees
Degrees	1 degree $= \dfrac{\pi}{180}$ radians