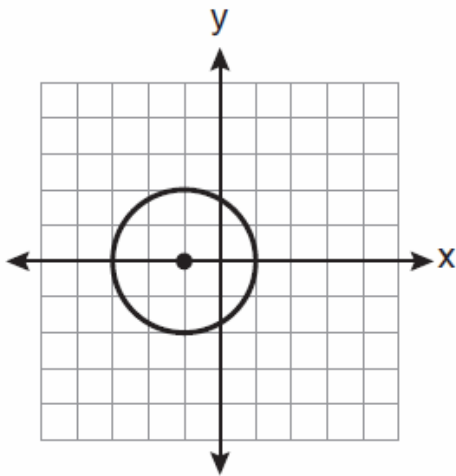**Geometry**
Daily Quiz 11182019

Question 1.

In $\triangle ABC$, an exterior angle at C measures $50°$. If $m\angle A > 30$, which inequality must be true?

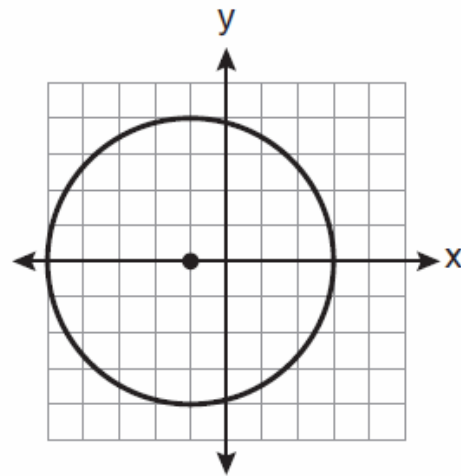(1) $m\angle B < 20$ (3) $m\angle BCA < 130$
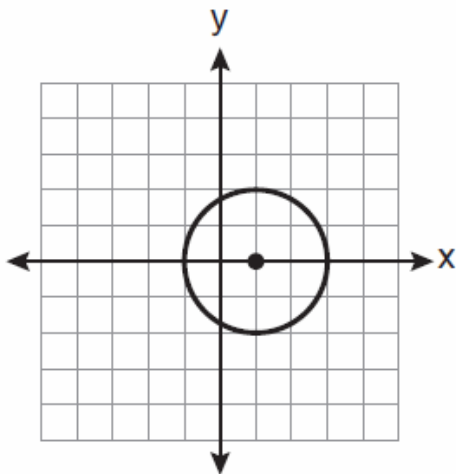
(2) $m\angle B > 20$ (4) $m\angle BCA > 130$

Question 2.

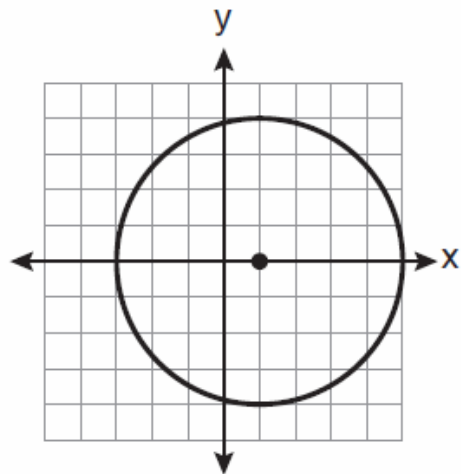Which graph represents the graph of the equation $(x - 1)^2 + y^2 = 4$?

(1)

(3)

(2)

(4)

Question 3.

The equations of lines k, p, and m are given below:

$$k: x + 2y = 6$$
$$p: 6x + 3y = 12$$
$$m: -x + 2y = 10$$

Which statement is true?

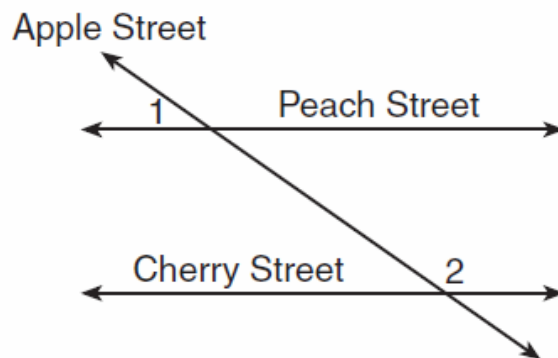(1) $p \perp m$ (3) $k \parallel p$

(2) $m \perp k$ (4) $m \parallel k$

Question 4.

Peach Street and Cherry Street are parallel. Apple Street intersects them, as shown in the diagram below.

If $m\angle 1 = 2x + 36$ and $m\angle 2 = 7x - 9$, what is $m\angle 1$?

(1) 9   (3) 54

(2) 17   (4) 70

Question 5.

A regular pyramid has a height of 12 centimeters and a square base. If the volume of the pyramid is 256 cubic centimeters, how many centimeters are in the length of one side of its base?

(1) 8   (3) 32

(2) 16   (4) 64

Question 6.

If *ABCD* is a parallelogram, what is the length of segment *BD*?


A   10

B   11

C   12

D   14

Question 7.

The diameter of a circle is 12 meters. If point *P* is in the same plane as the circle, and is 6 meters from the center of the circle, which *best* describes the location of point *P*?

A   Point *P* must be on the circle.

B   Point *P* must be inside the circle.

C   Point *P* may be either outside the circle or on the circle.

D   Point *P* may be either inside the circle or on the circle.

Question 8.

Given: $p \parallel q$;
$m \parallel n$;
$m\angle 1 = 75°$
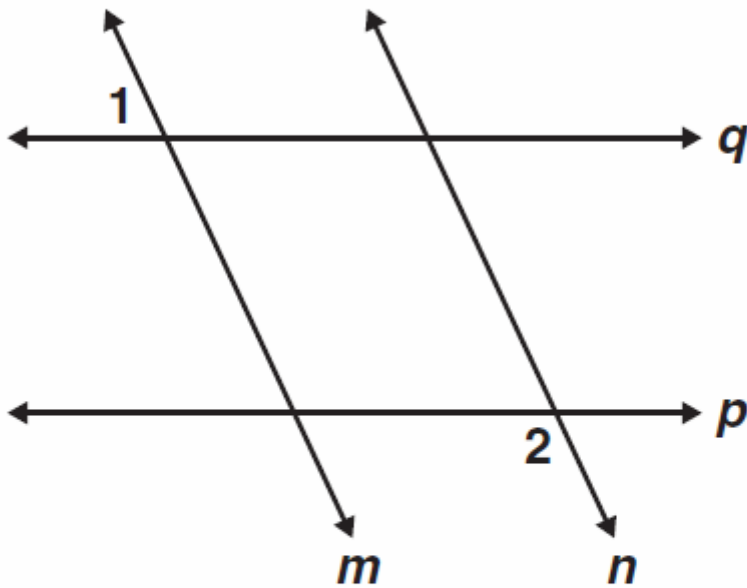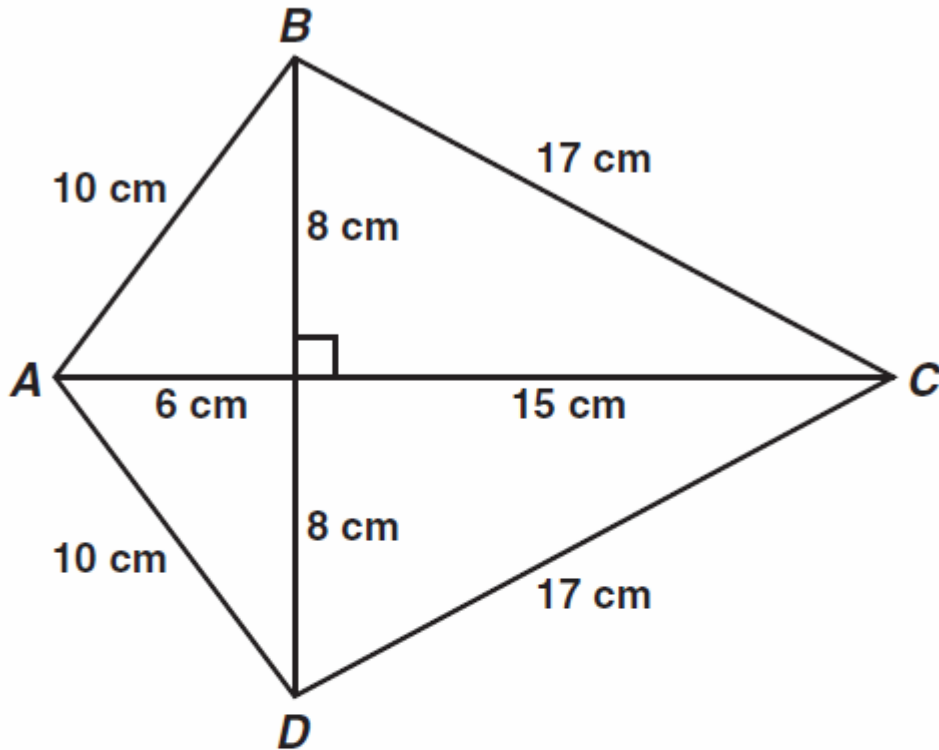

What is $m\angle 2$?

A   15°

B   75°

C   90°

D   105°

Question 9.

Figure *ABCD* is a kite.

What is the area of figure *ABCD*, in square centimeters?

A   120

B   154

C   168

D   336

Question 10.

If a cylindrical barrel measures 22 inches in diameter, how many inches will it roll in 8 revolutions along a smooth surface?

A 121π in.

B 168π in.

C 176π in.

D 228π in.

Bonus

The equation $x^2 + 2x + y^2 - 4y = b$ describes a circle.

a) What are the coordinates of the center of the circle?

b) The radius of the circle is 5 units, what is the value of b in the equation?

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	$A = \dfrac{1}{2}bh$
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