

Polygons and Rectangular Solids

For questions in the Quantitative Comparison format (“Quantity A” and “Quantity B” given), the answer choices are always as follows:

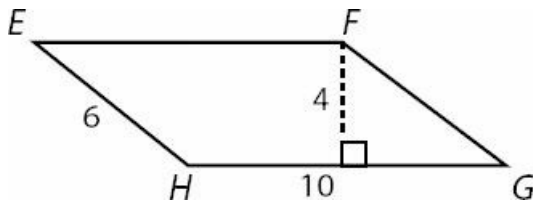
- (A) Quantity A is greater.
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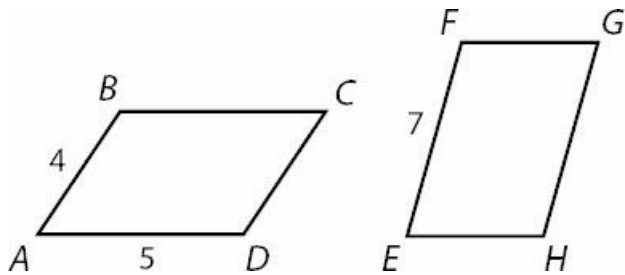
All numbers used are real numbers. All figures are assumed to lie in a plane unless otherwise indicated. Geometric figures are not necessarily drawn to scale. You should assume, however, that lines that appear to be straight are actually straight, points on a line are in the order shown, and all geometric objects are in the relative positions shown. Coordinate systems, such as xy -planes and number lines, as well as graphical data presentations such as bar charts, circle graphs, and line graphs, are drawn to scale. A symbol that appears more than once in a question has the same meaning throughout the question.

1.



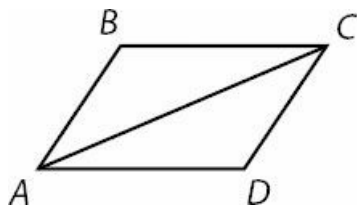
What is the area of parallelogram $EFGH$?

2.



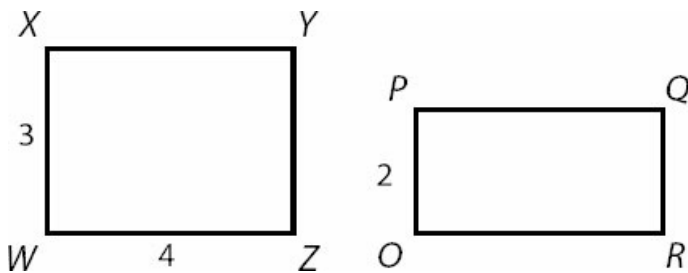
The two parallelograms pictured above have the same perimeter. What is the length of side EH ?

3.



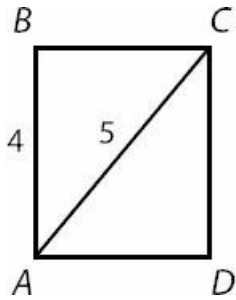
In Parallelogram $ABCD$, Triangle ABC has an area of 12. What is the area of Triangle ACD ?

4.



Rectangle $WXYZ$ and Rectangle $OPQR$ have equal areas. What is the length of side PQ ?

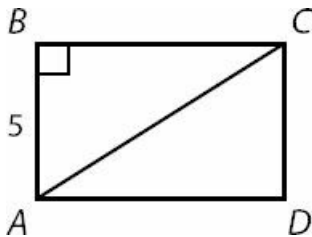
5.



What is the area of Rectangle $ABCD$?



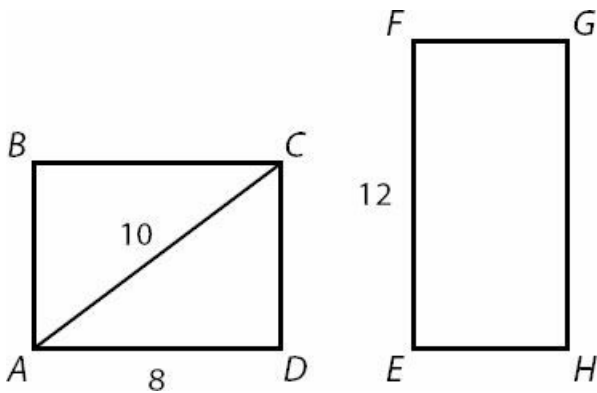
6.



In Rectangle $ABCD$, the area of Triangle ABC is 30. What is the length of diagonal AC ?



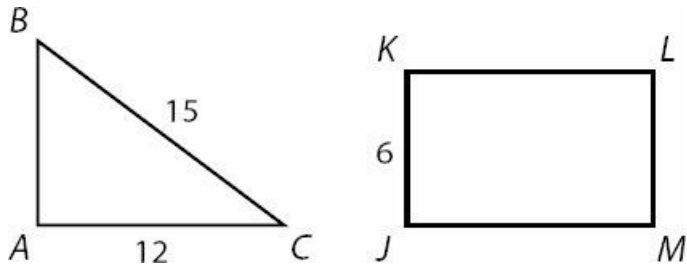
7.



Rectangles $ABCD$ and $EFGH$ have equal areas. What is the length of side FG ?



8.



Triangle ABC and Rectangle $JKLM$ have equal areas. What is the perimeter of Rectangle $JKLM$?



9.

Quantity A

Quantity B

The longest side of a rectangle with area 36

6

10.

Quantity A

Quantity B

The area of a rectangle with perimeter 40

110

11. What is the area of a square with a diagonal measuring $4\sqrt{2}$ centimeters?



centimeters square

12.

Quantity A

Quantity B

The area of a parallelogram with a base of length 4 and height of 3.5

The area of a trapezoid with two parallel sides of lengths 5 and 9 and a height of 2

13.



Quantity A

x



Quantity B

y

14.

A trapezoid has an area of 42 and a height that is less than or equal to 6.

Quantity A

The height of the trapezoid

Quantity B

The length of the longer base of the trapezoid

15.

The perimeter of square W is 50% of the perimeter of square D .

Quantity A

The ratio of the area of square W to the area of square D

Quantity B

$\frac{1}{4}$

16. A 10 by 15 inch rectangular picture is displayed in a 16 by 24 inch rectangular frame. What is the area, in inches, of the part of the frame not covered by the picture?

- (A) 150
- (B) 234
- (C) 244
- (D) 264
- (E) 384

17.

A rectangular box has edges of length 2, 3, and 4.

Quantity A

Twice the volume of the box

Quantity B

The surface area of the box

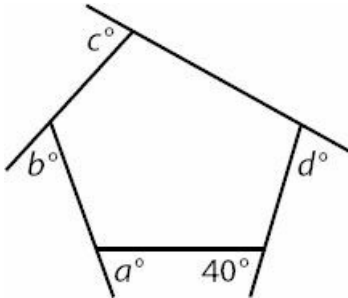
18. A perfect cube has surface area 96. What is its volume?



19. How many 2 inch by 2 inch by 2 inch solid cubes can be cut from six solid cubes that are 1 foot on each side? (12 inches = 1 foot)

- (A) 8
- (B) 64
- (C) 216
- (D) 1,296
- (E) 1,728

20.



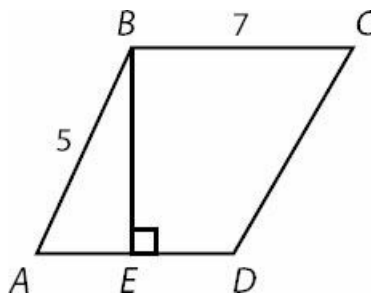
What is the value of $a + b + c + d$?

- (A) 240
- (B) 320
- (C) 360
- (D) 500
- (E) 540

21. Garden A is a 225 meter by 180 meter rectangular vegetable garden, and Garden B is a rectangle with exactly half the length and width of Garden A. What is the ratio of the area of Garden A to the area of Garden B?

- (A) 1 : 4
- (B) 1 : 2
- (C) 2 : 1
- (D) 4 : 1
- (E) 8 : 1

22.



In the trapezoid above, $AE = ED = 3$ and BC is parallel to AD .

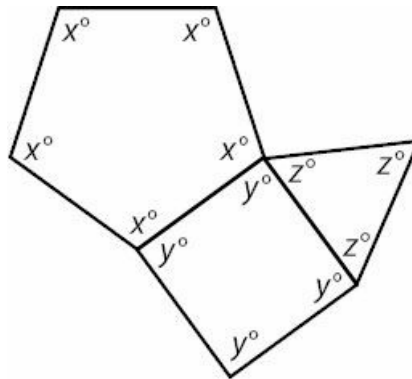
Quantity A

The area of the trapezoid

Quantity B

35

23.



Quantity A

The value of $x + y + z$

Quantity B

270

24. A rectangle has an area of $54\sqrt{2}$ and a length of 6. What is the perimeter of the rectangle?

- (A) $15\sqrt{2}$
- (B) $30\sqrt{2}$
- (C) $6 + 9\sqrt{2}$
- (D) $12 + 18\sqrt{2}$
- (E) $18 + 12\sqrt{2}$

25. A 1 meter by 1 meter by 1 meter sheet of paper is to be cut into 4 centimeter by 5 centimeter rectangles. How many such rectangles can be cut from the sheet of paper? (1 meter = 100 centimeters)



26.

A parallelogram has two sides with length 10 and two sides with length 5.

Quantity A

The area of the parallelogram

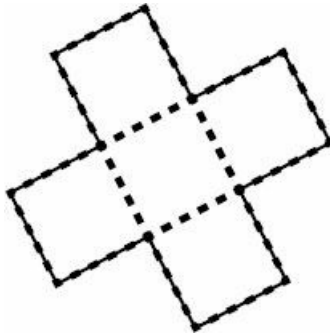
Quantity B

30

27. What is the area of a regular hexagon with side length 2?

- (A) $2\sqrt{3}$
- (B) $2\sqrt{6}$
- (C) $6\sqrt{2}$
- (D) $6\sqrt{3}$
- (E) $12\sqrt{3}$

28.



The figure above is composed of 5 squares of equal area, as indicated by the dotted lines. The total area of the figure is 45.

Quantity A

The perimeter of the figure

Quantity B

48

29.

Quantity A

The largest possible area of a rhombus with side 4.

Quantity B

The area of a square with side 4.

30. A 2 foot by 2 foot by 2 foot solid cube is cut into 2 inch by 2 inch by 4 inch rectangular solids. What is the ratio of the total surface area of all the resulting smaller rectangular solids to the surface area of the original cube? (1 foot = 12 inches)

- (A) 2 : 1
- (B) 4 : 1
- (C) 5 : 1
- (D) 8 : 1
- (E) 10 : 1

31. If a cube has the same volume (in cubic units) as surface area (in square units), what is the length of one side?

- (A) 1
- (B) 3
- (C) $\frac{5}{3}$

- (D) 6
- (E) No such cube is possible.

Coordinate Geometry

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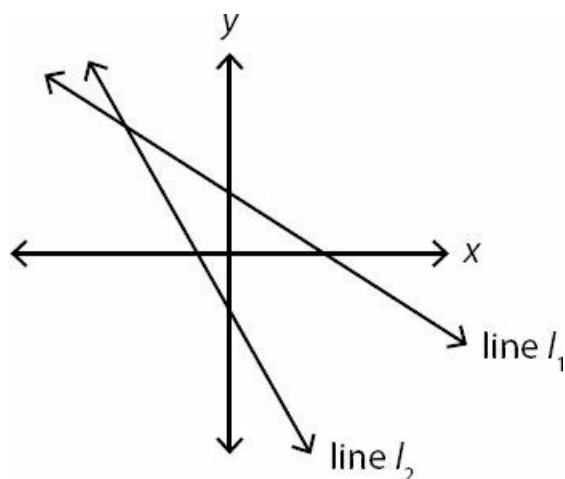
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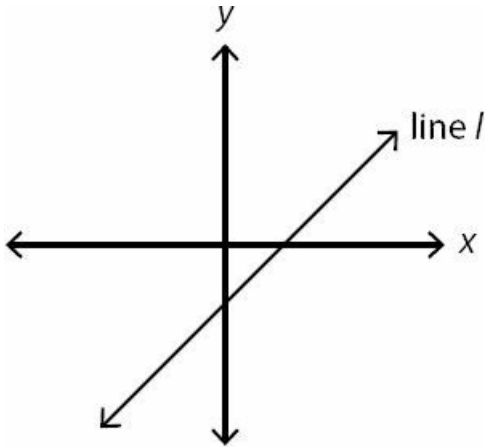
Quantity A

Quantity B

The slope of line l_1

The slope of line l_2

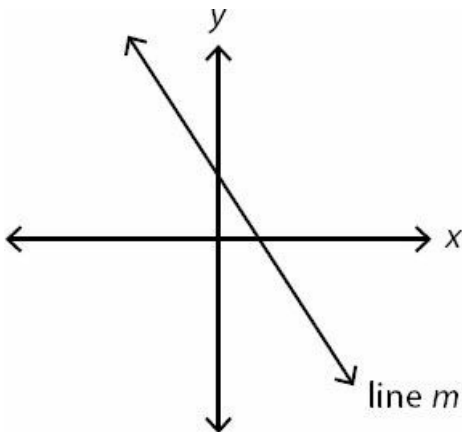
2.



Which of the following is most likely to be the equation of line l ?

- (A) $y = 4x + 4$
- (B) $y = 4x - 4$
- (C) $y = x - 6$
- (D) $y = x + 1/2$
- (E) $y = -x - 3$

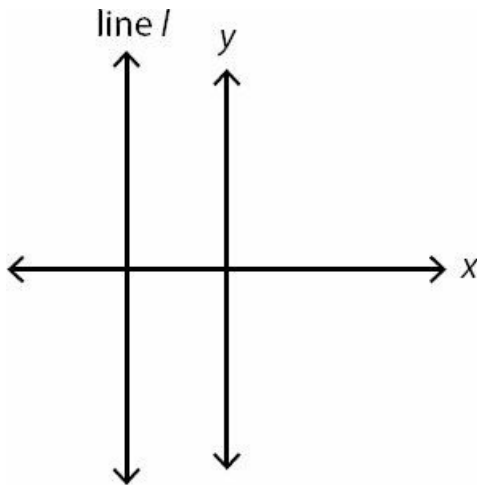
3.



Which of the following could be the equation of line m ?

- (A) $6y + 6x = 7$
- (B) $3y = -4x - 3$
- (C) $5y + 10 = -4x$
- (D) $y = 2$
- (E) $x = -2$

4.



If line l is parallel to the y -axis, what could be the equation of line l ?

- (A) $x = 2$
 - (B) $x = -2$
 - (C) $y = 2$
 - (D) $y = -2$
 - (E) $y = -2x$
5. What is the equation of the line that passes through $(-1, -3)$ and has a slope of -2 ?
- (A) $y = -2x - 1$
 - (B) $y = -2x - 2$
 - (C) $y = -2x - 5$
 - (D) $y = -4x - 2$
 - (E) $y = -5x + 2$
6. What is the slope of a line that passes through the points $(-4, 5)$ and $(1, 2)$?
- (A) $-\frac{3}{5}$
 - (B) -1
 - (C) $-\frac{5}{3}$
 - (D) $-\frac{7}{3}$
 - (E) -3
7. Which of the following could be the slope of a line that passes through the point $(-2, -3)$ and crosses the y -axis above the origin?

Indicate all such values.

☐ $-\frac{2}{3}$

☐ $\frac{3}{7}$

☐ $\frac{3}{2}$

☐ $\frac{5}{3}$

☐ $\frac{9}{4}$

☐ 4

8. If a line has slope -2 and passes through the points (4, 9) and (6, y), what is the value of y ?

9. What is the distance between the points (-1, -1) and (5, 6)?

(A) 6

(B) 7

(C) $\sqrt{79}$

(D) $\sqrt{85}$

(E) 11

10. If the longest distance between any two of the points (-1, -2), (6, -2), and (7, 10) is $p\sqrt{13}$, what is the value of p ?

11.

A line has the equation $2y - 4x - 8 = 0$.

Quantity A

The slope of the line

Quantity B

4

12. Which of the following points lies on the line $y = 2x - 8$?

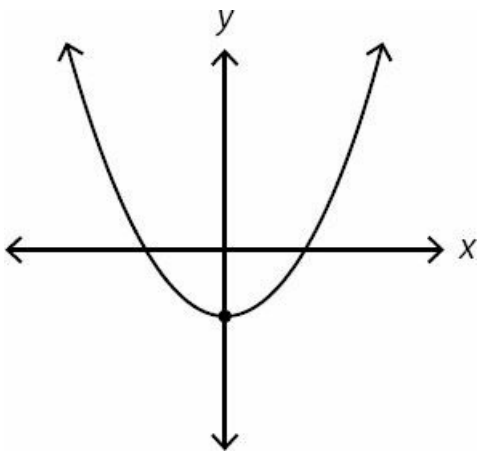
Indicate all such values.

- ☐ (3, -2)
- ☐ (-8, 0)
- ☐ (1/2, -7)

13. Which of the following points does NOT lie on the curve $y = x^2 - 3$?

- (A) (3, 6)
- (B) (-3, 6)
- (C) (0, -3)
- (D) (-3, 0)
- (E) (0.5, -2.75)

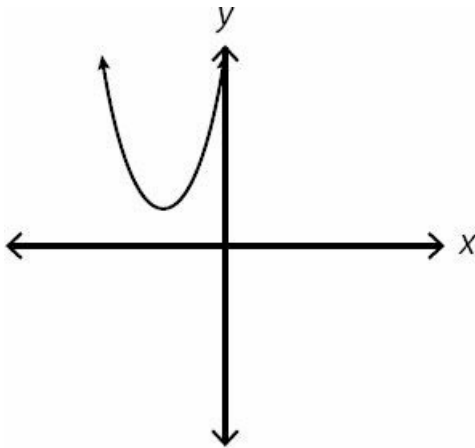
14.



Which of the following could be the equation of the figure above?

- (A) $y = x - 2$
- (B) $y = x^2 - x$
- (C) $y = x^2 - 2$
- (D) $y^2 = x^2$
- (E) $y = x^3 - 2$

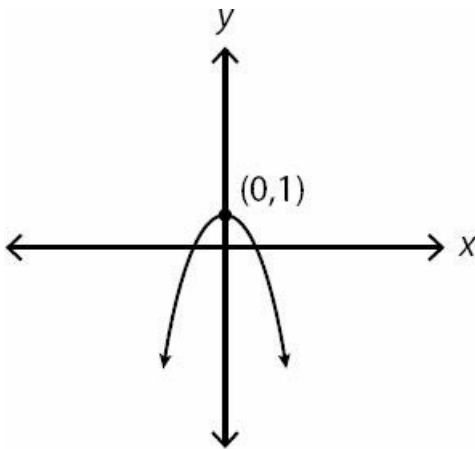
15.



Which of the following could be the equation of the parabola pictured above?

- (A) $y = x^2 + 3$
- (B) $y = (x - 3)^2 + 3$
- (C) $y = (x + 3)^2 - 3$
- (D) $y = (x - 3)^2 - 3$
- (E) $y = (x + 3)^2 + 3$

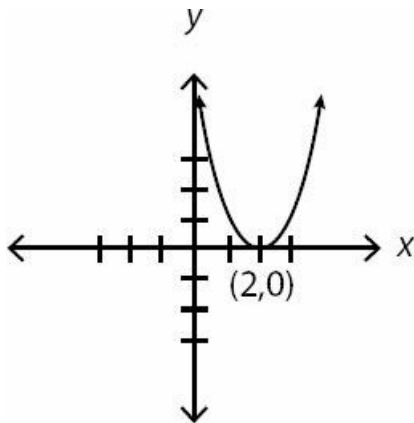
16.



Which of the following could be the equation of the parabola pictured above?

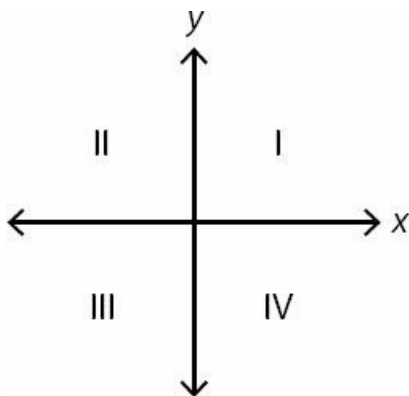
- (A) $y = -x - 1$
- (B) $y = x^2 + 1$
- (C) $y = -x^2 - 1$
- (D) $y = -x^2 + 1$
- (E) $y = -(x - 1)^2$

17.



If the equation of the parabola pictured above is $y = (x - h)^2 + k$ and $(-3, n)$ is a point on the parabola, what is the value of n ?

18.



Which quadrant, if any, contains no point (x, y) that satisfies the inequality $y \geq (x - 3)^2 - 1$?

- (A) I
- (B) II
- (C) III
- (D) IV
- (E) All quadrants contain at least one point that satisfies the given inequality.

19.

In the coordinate plane, line p has an equation of $3y - 9x = 9$.

Quantity A

Quantity B

The slope of line p

The x -intercept of line p

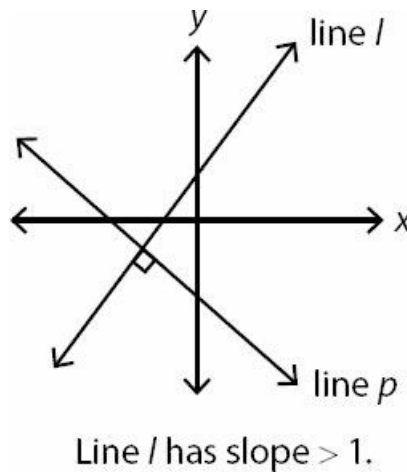
20. In the xy coordinate plane, lines l_1 and l_2 intersect at $(2, 4)$. If the equation of l_1 is $y = px + 16$ and the equation of l_2 is $y = mx + p$, where m and p are constants, what is the value of m ?

21. If $(3, 5)$ and $(4, 9)$ are points on line L , which of the following is also a point on that line?

Indicate all such values.

- ☐ $(2, 1)$
☐ $(5, 12)$
☐ $(6, 17)$

22.



Quantity A

Slope of line p

Quantity B

-1

23.

Lines l_1 and l_2 are parallel and have slopes that sum to less than 1.

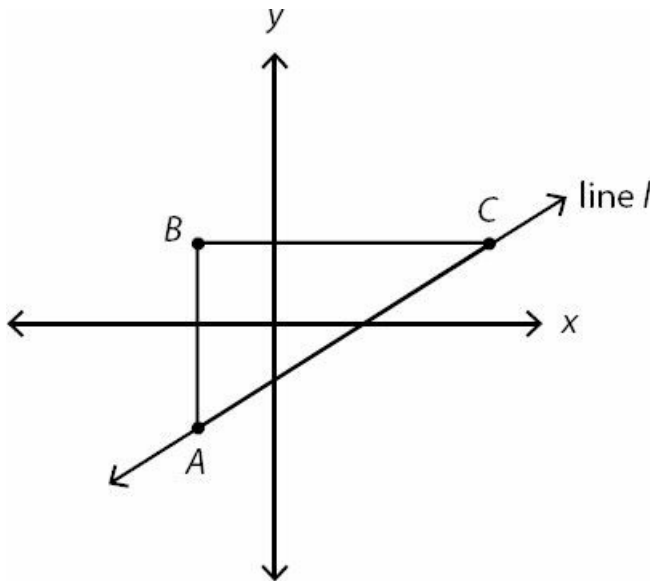
Quantity A

The slope of a line
perpendicular to lines l_1 and l_2

Quantity B

$-\frac{1}{2}$

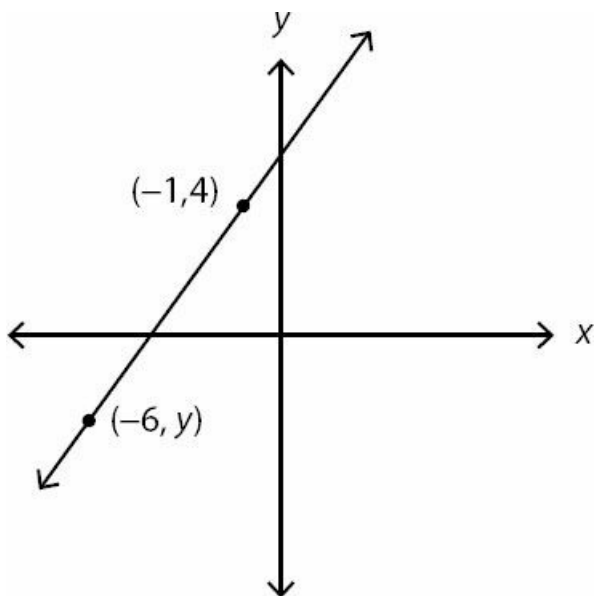
24.



If the slope of line l is $\frac{1}{3}$ and the length of line segment BC is 4, how long is line segment AB ?

- (A) $\frac{3}{4}$
- (B) $\frac{4}{3}$
- (C) 3
- (D) 4
- (E) 12

25.



If the slope of the line is $-\frac{15}{14}$, what is the value of y ?

- (A) $\frac{2}{7}$
 (B) $\frac{7}{2}$
 (C) $-\frac{7}{2}$
 (D) $-\frac{14}{19}$
 (E) $-\frac{19}{14}$

26. What is the area of a triangle with vertices $(-2, 4)$, $(2, 4)$ and $(-6, 6)$?



27.

Lines k and p are perpendicular, neither is vertical, and p passes through the origin.

Quantity A

The product of the slopes of
lines k and p

Quantity B

The product of the y -intercepts
of lines k and p

28.

In the coordinate plane, points (a, b) and (c, d) are equidistant from the origin.
 $|a| > |c|$

Quantity A

$|b|$

Quantity B

$|d|$

29.

In the coordinate plane, lines j and k are parallel. The x -intercept of line j is greater than that of line k and the product of their slopes is positive.

Quantity A

The y -intercept of line j

Quantity B

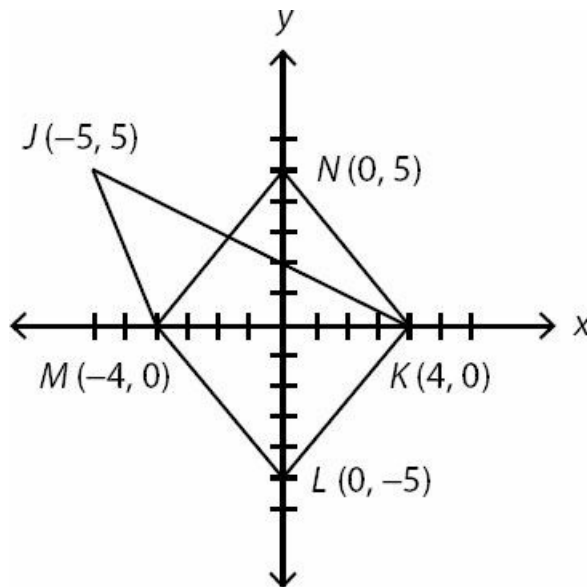
The y -intercept of line k

30. In the xy plane, which of the statements below individually provide enough information to determine whether line z passes through the origin?

Indicate all such statements.

- ☐ The equation of line z is $y = mx + b$ and $b = 0$.
- ☐ The sum of the slope and the y -intercept of line z is 0.
- ☐ For any point (a, b) on line z , $|a| = |b|$.

31.



Quantity A

The area of parallelogram $KLMN$

Quantity B

The area of quadrilateral $JKLM$

32. Which of the following could be the equation of a line parallel to the line $5x - 6y = 9$?

- (A) $y = -\frac{5}{6}x + 1$
- (B) $y = \frac{6}{5}x + 1$
- (C) $y = \frac{5}{6}x + 1$
- (D) $y = \frac{3}{2}x - 1$
- (E) $y = \frac{2}{3}x - 1$

33. Which of the following could be the equation of a line perpendicular to the line $y = -6x + 4$?

- (A) $6y - x = 12$

(B) $x = -6y - 12$

(C) $y + 4x = 2$

(D) $\frac{y}{2} = -3x + 5$

(E) $y + 1 = 6x$

Circles and Cylinders

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1. A circle has an area of 16π . What is its circumference?

- (A) 4π
- (B) 8π
- (C) 16π
- (D) 32π
- (E) It cannot be determined from the information given.

2. A circle has a circumference of 20π . What is its area?

- (A) 10π
- (B) 20π
- (C) 40π
- (D) 100π
- (E) 400π

3. A circle has a circumference of 8. What is its area?

- (A) $\frac{4}{\pi}$
- (B) $\frac{4}{\pi^2}$
- (C) $\frac{16}{\pi}$
- (D) $\frac{16}{\pi^2}$
- (E) 16π

4. A circle has a diameter of 5. What is its area?

- (A) $\frac{25\pi}{4}$
- (B) $\frac{25\pi}{2}$
- (C) $\frac{25\pi^2}{2}$
- (D) 10π
- (E) 25π

5. A circle's area equals its circumference. What is its radius?

- (A) 1
- (B) 2
- (C) 4
- (D) 8
- (E) 16

6.

Circle C has a radius r such that $1 < r < 5$

Quantity A

The area of Circle C

Quantity B

The circumference of Circle C

7.

Quantity A

The radius of a circle with area 36π

Quantity B

The radius of a circle with circumference 12π

8.

Quantity A

The area of a circle with radius 4

Quantity B

The circumference of a circle with radius 6

9. A circle has radius $\frac{5}{3}$. What is its area?

(A) $\frac{\sqrt{5}\pi}{3}$

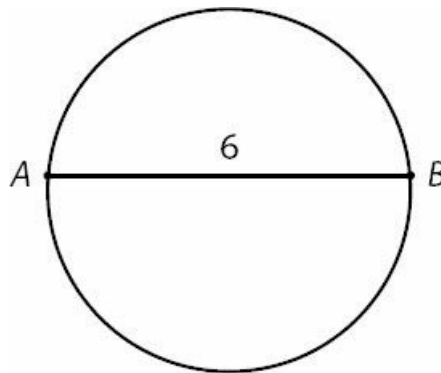
(B) $\frac{5\pi}{3}$

(C) $\frac{25\pi}{9}$

(D) $\frac{10\pi}{3}$

(E) $\frac{100\pi}{9}$

10.



AB is not a diameter of the circle

Quantity A

The area of the circle

Quantity B

9π

11. A circle has radius 0.01. What is its area?

- (A) $\frac{\pi}{10}$
- (B) $\frac{\pi}{100}$
- (C) $\frac{\pi}{1,000}$
- (D) $\frac{\pi}{10,000}$
- (E) $\frac{\pi}{100,000}$

12. A circle has radius \sqrt{x} . What is its circumference?

- (A) πx
- (B) $2\pi x$
- (C) $2\pi\sqrt{x}$
- (D) $2\pi x^2$
- (E) πx^2

13.

The circumference of a circle is greater than 7π .

Quantity A

Quantity B

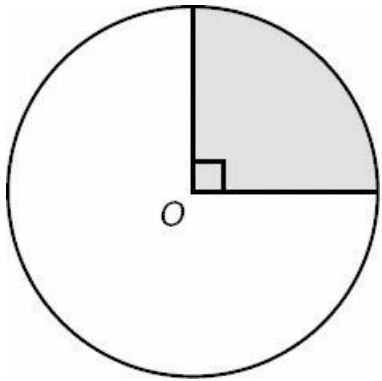
The area of the circle

15π

14. A circle has an area of 4π . If the radius were doubled, the new area of the circle would be how many times the original area?

- (A) 2
- (B) 3
- (C) 4
- (D) 5
- (E) It cannot be determined from the information given.

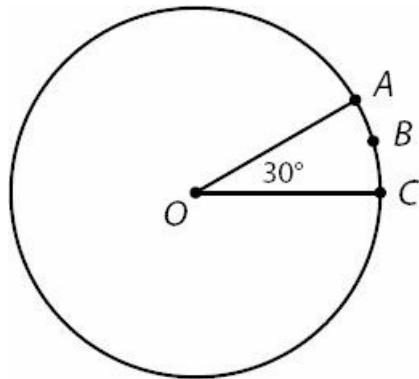
15.



In the figure above, point O is the center of the circle. If the radius of the circle is 8, what is the area of the shaded sector?

- (A) 2π
- (B) 4π
- (C) 8π
- (D) 16π
- (E) 32π

16.



The radius of the circle with center O is 6.

Quantity A

The length of arc ABC

Quantity B

3

17. A sector of a circle has an arc length of 7π . If the diameter of the circle is 14, what is the measure of the central angle of the sector, in degrees?

- (A) 45
- (B) 60
- (C) 90
- (D) 120
- (E) 180

18. A sector of a circle has a central angle of 270° . If the circle has a radius of 4, what is the area of the sector?

- (A) 4π
- (B) 8π
- (C) 12π
- (D) 16π
- (E) 20π

19.

Within a circle with radius 12, a sector has an area of 24π .

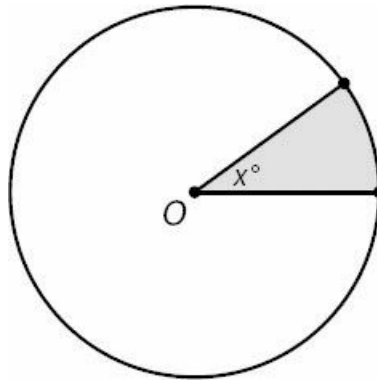
Quantity A

The measure of the central angle of the sector, in degrees

Quantity B

90

20.



The area of the shaded sector is $\frac{1}{10}$ of the area of the full circle.

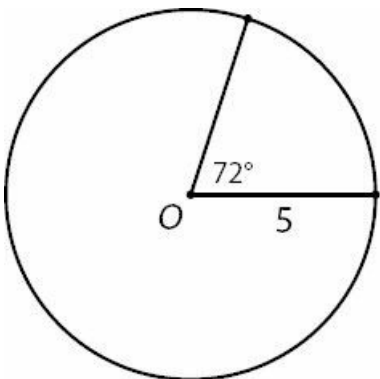
Quantity A

$2x$

Quantity B

75

21.



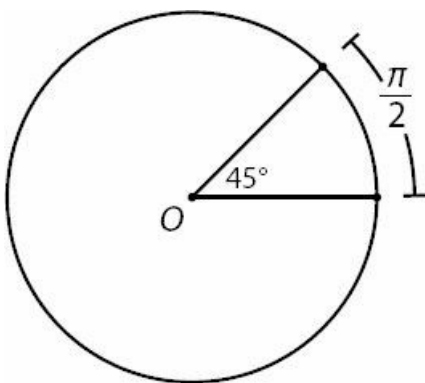
If O is the center of the circle, what is the perimeter of the sector with central angle 72° ?

- (A) $5 + 2\pi$
- (B) $10 + 2\pi$
- (C) $10 + 4\pi$
- (D) $10 + 5\pi$
- (E) $20 + 2\pi$

22. A sector of a circle has a radius of 8 and an area of 8π . What is the arc length of the sector?

- (A) π
- (B) 2π
- (C) 4π
- (D) 6π
- (E) 8π

23.



If point O is the center of the circle in the figure above, what is the radius of the circle?

24.

Sector A and Sector B are sectors of two different circles.

Sector A has a radius of 4 and a central angle of 90° .

Sector B has a radius of 6 and a central angle of 45° .

Quantity A

The area of Sector A

Quantity B

The area of Sector B

25. What is the volume of a right circular cylinder with a radius of 2 and a height of 4?

- (A) 8π
- (B) 12π
- (C) 16π
- (D) 32π
- (E) 72π

26. What is the height of a right circular cylinder with radius 1 and volume 16π ?



27.

A right circular cylinder has volume 24π .

Quantity A

The height of the cylinder

Quantity B

The radius of the cylinder

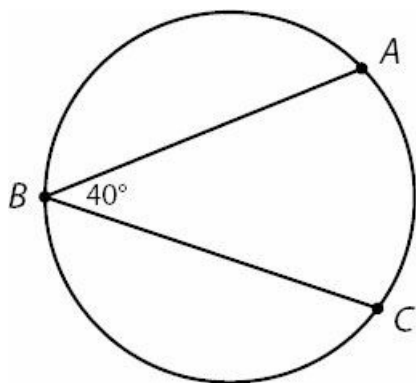
28. If a half-full 4-inch by 2-inch by 8-inch box of soymilk is poured into a right circular cylindrical glass with radius 2 inches, how many inches high will the soymilk reach? (Assume that the capacity of the glass is greater than the volume of the soymilk.)

- (A) 8
(B) 16
(C) $\frac{4}{\pi}$
(D) $\frac{8}{\pi}$
(E) $\frac{16}{\pi}$

29. If a right circular cylinder's radius is halved and its height doubled, by what percent will the volume increase or decrease?

- (A) 50% decrease
(B) no change
(C) 25% increase
(D) 50% increase
(E) 100% increase

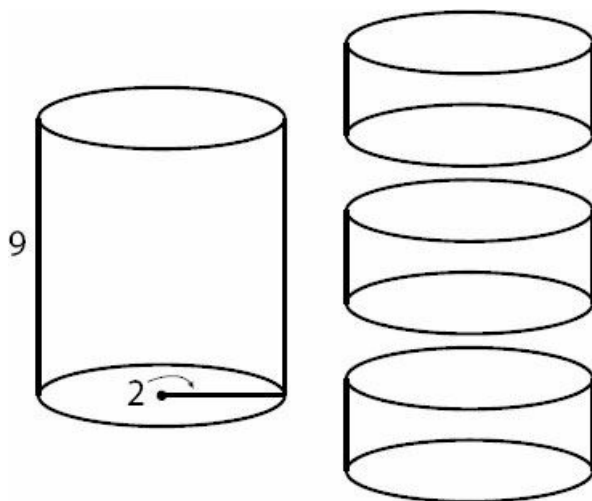
30.



If the diameter of the circle is 36, what is the length of arc ABC ?

- (A) 8
- (B) 8π
- (C) 28π
- (D) 32π
- (E) 56π

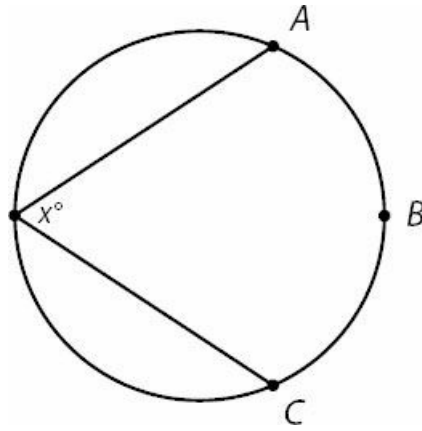
31.



If a solid right circular cylinder with height 9 and radius 2 is cut as shown into three new cylinders, each of equal and uniform height, how much new surface area is created?

- (A) 4π
- (B) 12π
- (C) 16π
- (D) 24π
- (E) 36π

32.



$$x > 60^\circ$$

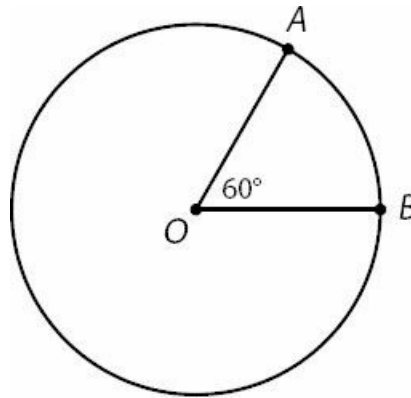
Quantity A

The ratio of the length of arc ABC to the circumference of the circle

Quantity B

$$1/3$$

33.



Point O is the center of the circle above.

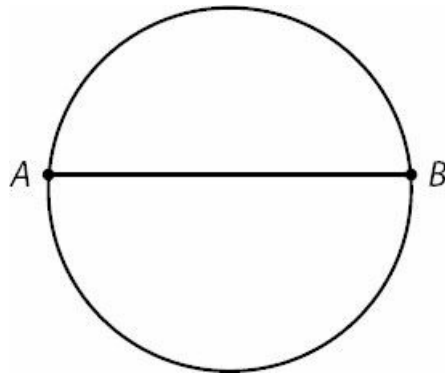
Quantity A

The ratio of the length of minor arc AB to major arc AB

Quantity B

$$1/6$$

34.



The circle above has area 25.

Quantity A

The length of chord AB

Quantity B

10

Mixed Geometry

For questions in the Quantitative Comparison format (“Quantity A” and “Quantity B” given), the answer choices are always as follows:

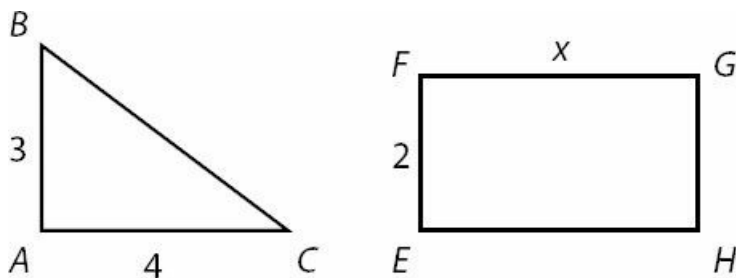
- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

For questions followed by a numeric entry box , you are to enter your own answer in the

box. For questions followed by fraction-style numeric entry boxes

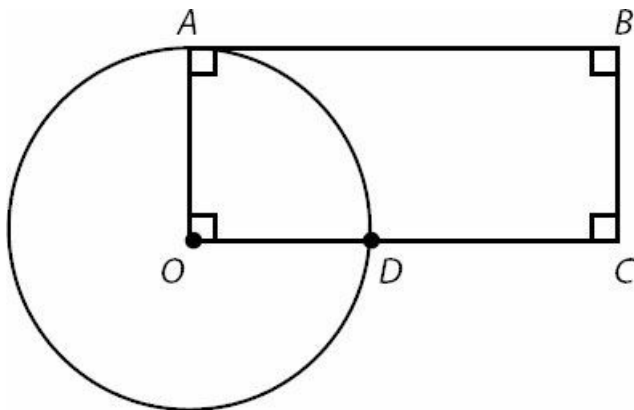
All numbers used are real numbers. All figures are assumed to lie in a plane unless otherwise indicated. Geometric figures are not necessarily drawn to scale. You should assume, however, that lines that appear to be straight are actually straight, points on a line are in the order shown, and all geometric objects are in the relative positions shown. Coordinate systems, such as xy -planes and number lines, as well as graphical data presentations such as bar charts, circle graphs, and line graphs, are drawn to scale. A symbol that appears more than once in a question has the same meaning throughout the question.

1.



Right Triangle ABC and Rectangle $EFGH$ have the same perimeter. What is the value of x ?

2.



Point O is the center of the circle.

If the area of the circle is 36π and the area of the rectangle is 72, what is the length of DC ?



3. The center of a circle is $(5, -2)$. $(5, 7)$ is outside the circle, and $(1, -2)$ is inside the circle. If the radius, r , is an integer, how many possible values are there for r ?

- (A) 4
- (B) 5
- (C) 6
- (D) 7
- (E) 8

4.

A square's perimeter in inches is equal to its area in square inches.
A circle's circumference in inches is equal to its area in square inches.

Quantity A

The side length of the square.

Quantity B

The diameter of the circle.

5.

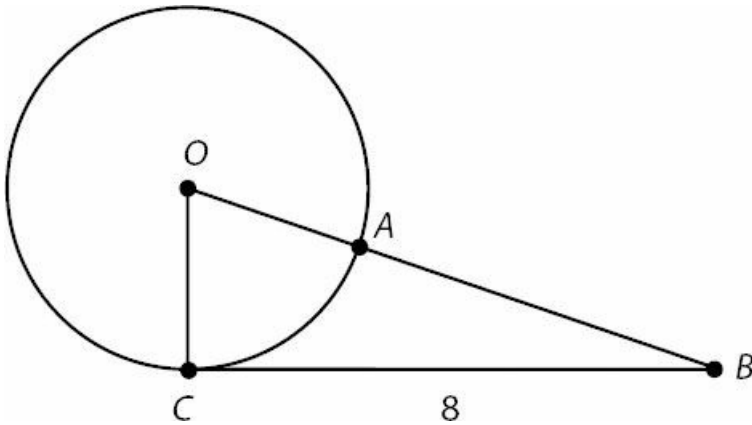
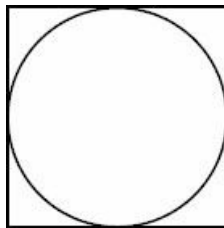


Image NOT to scale

In the figure above, point O is the center of the circle, points A and C are located on the circle, and line segment BC is tangent to the circle. If the area of triangle OBC is 24, what is the length of AB ?

- (A) 2
- (B) 4
- (C) 6
- (D) 8
- (E) 10

6.



The circle is inscribed in the square.
The area of the circle is 25π .

Quantity A

The area of the square

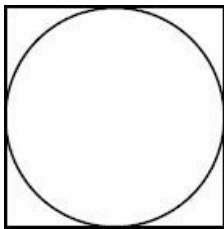
Quantity B

50

7. If a circle is inscribed in a square with area 16, the area of the circle is equal to how many π ?



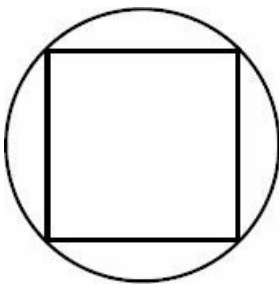
8.



If the circle is inscribed in the square above, and the area of the square is 50, what is the area of the circle?

- (A) $\frac{25\pi}{4}$
- (B) $\frac{25\pi}{2}$
- (C) 25π
- (D) 50π
- (E) $\frac{625\pi}{16}$

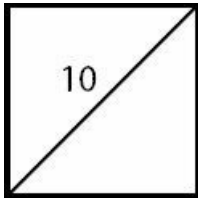
9.



In the figure above, a square is inscribed in a circle. If the area of the square is 4, what is the area of the circle?

- (A) π
- (B) 2π
- (C) 4π
- (D) 6π
- (E) 8π

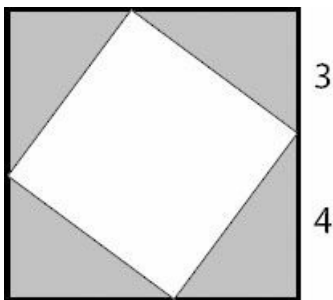
10.



What is the area of the square in the figure above?



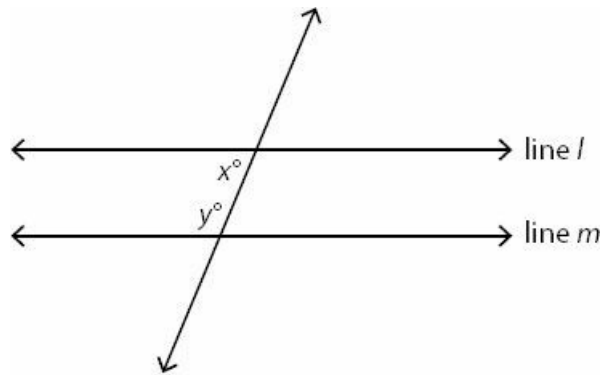
11.



In the 7-inch square above, another square is inscribed. What fraction of the larger square is shaded?

- (A) $\frac{3}{12}$
- (B) $\frac{24}{49}$
- (C) $\frac{1}{2}$
- (D) $\frac{25}{49}$
- (E) $\frac{7}{12}$

12.



Lines l and m are parallel.

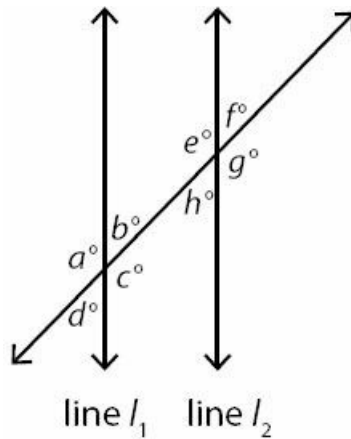
Quantity A

$$x^\circ$$

Quantity B

$$180 - y^\circ$$

13.



Lines l_1 and l_2 are parallel.

$$a > 90$$

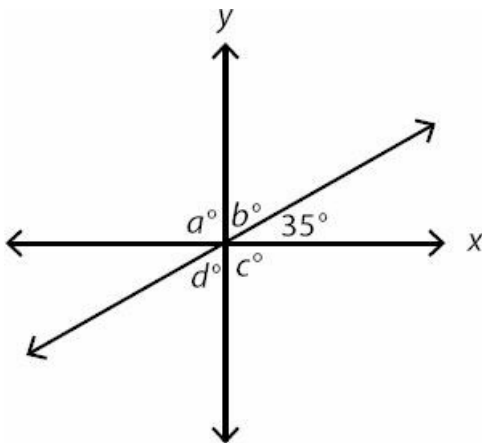
Quantity A

$$a + g + f$$

Quantity B

$$e + b + h$$

14.



What is the value of $a + b + c + d$?

15.

A right isosceles triangle with a leg of length f has the same area as a square with a side of length 5.

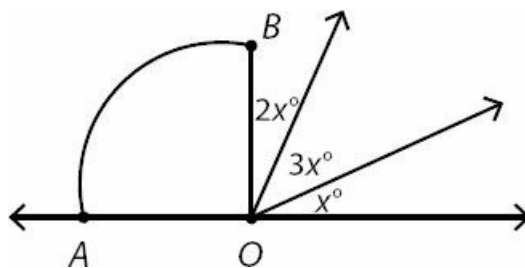
Quantity A

f

Quantity B

s

16.



Sector OAB is a quarter-circle.

Quantity A

x

Quantity B

15

17. In the xy -plane, an equilateral triangle has vertices at $(0, 0)$ and $(9, 0)$. What could be the coordinates of the third vertex?

(A) $(0, 4.5)$

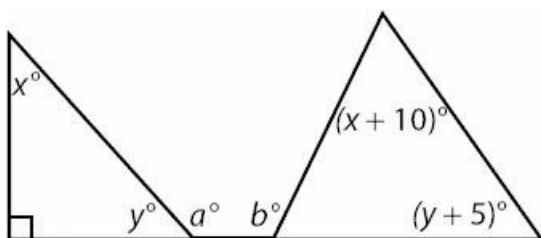
(B) $(4.5, 4.5)$

(C) $\left(\frac{9\sqrt{3}}{2}, \frac{9\sqrt{3}}{2}\right)$

(D) $(4.5, 9\sqrt{3})$

(E) $\left(4.5, \frac{9\sqrt{3}}{2}\right)$

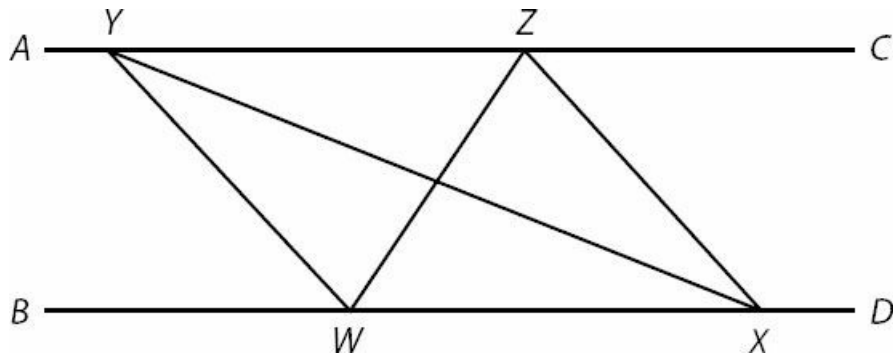
18.



What is a in terms of b and y ?

- (A) $b + y + 65$
- (B) $b - y + 65$
- (C) $b + y + 75$
- (D) $b - 2y + 45$
- (E) $b - y + 75$

19.



In the figure above, line segments AC and BD are parallel.

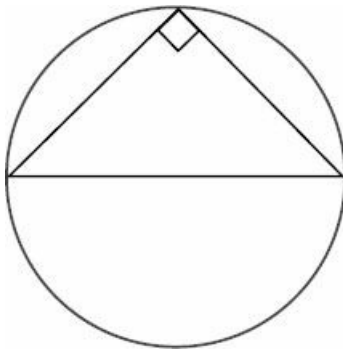
Quantity A

The area of triangle WYX

Quantity B

The area of triangle WZX

20.



A right triangle is inscribed in a circle with an area of 16π centimeters² as shown above.

Quantity A

The hypotenuse of the triangle,
in centimeters

Quantity B

8

21. A rectangular box has a length of 6 cm, a width of 8 cm, and a height of 10 cm. What is the length of the diagonal of the box, in cm?

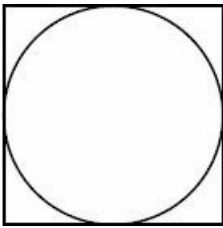
- (A) 10
- (B) 12
- (C) $10\sqrt{2}$

- (D) $10\sqrt{3}$
 (E) 24

22. If the diagonal of a square garden is 20 feet long, what is the perimeter of the garden?

- (A) $10\sqrt{2}$ feet
 (B) $20\sqrt{2}$ feet
 (C) 40 feet
 (D) $40\sqrt{2}$ feet
 (E) 80 feet

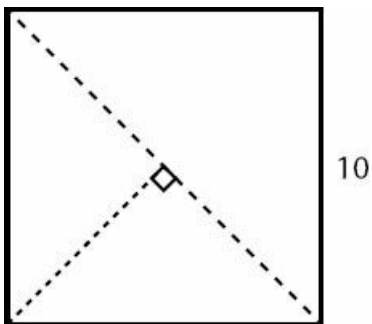
23.



In the figure above, if the diagonal of the square is 12, what is the radius of the circle?

- (A) $3\sqrt{2}$
 (B) 6
 (C) $6\sqrt{2}$
 (D) 9
 (E) 18

24.



Julian takes a 10- by 10-inch square piece of paper and cuts it in half along the diagonal. He then takes one of the halves and cuts it in half again from the corner to the midpoint of the opposite side. All cuts are represented in the figure with dotted lines. What is the perimeter of one of the smallest triangles, in inches?

- (A) 10
 (B) $10\sqrt{2}$

(C) 20

(D) $10 + 10\sqrt{2}$

(E) $10 + 20\sqrt{2}$

[illegible]

Coordinate Geometry					Mixed Geometry	
Preguntas	Respuestas				Preguntas	Respuestas
1	A	28	B		1	4
2	C	29	D		2	6
3	A	30	I & III only		3	A
4	B	31	C		4	C
5	C	32	C		5	B
6	A	33	A		6	A
7	IV, V & VI only				7	4
8	5				8	B
9	D				9	B
10	4				10	50
11	B				11	B
12	I & III only				12	C
13	D				13	A
14	C				14	290
15	E				15	A
16	D				16	C
17	25				17	E
18	C				18	E
19	A				19	C
20	5				20	C
21	I & II only				21	C
22	A				22	D
23	D				23	A
24	B				24	D
25	E					
26	4					
27	B					