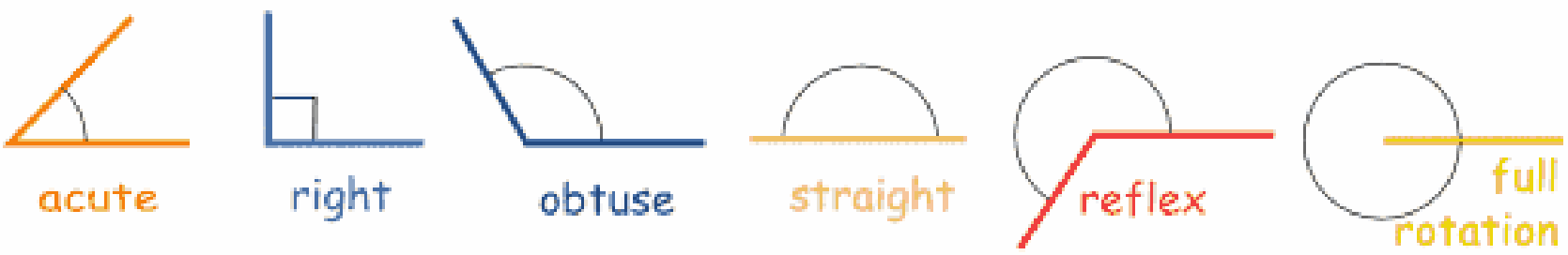
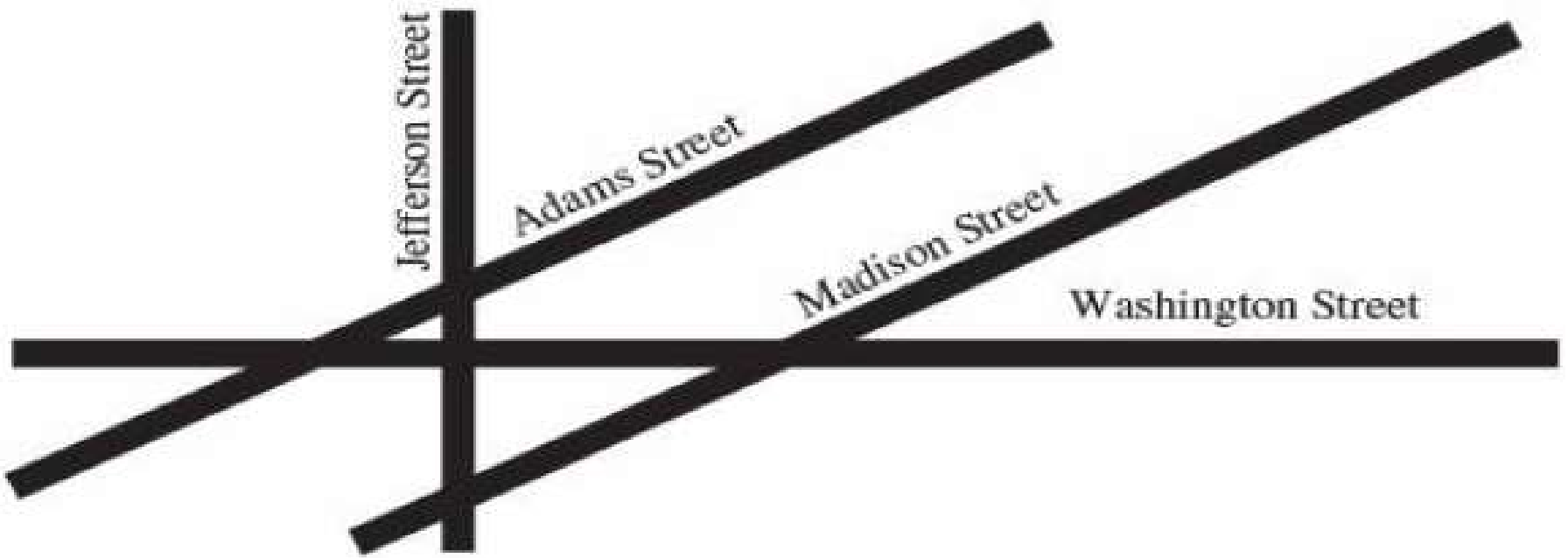
Fourth Grade

Geometry & Measurement


acute
right
obtuse
straight
reflex
full
rotation

A map of four streets is shown below.



Which two streets appear to be perpendicular?

A. Jefferson Street and Washington Street

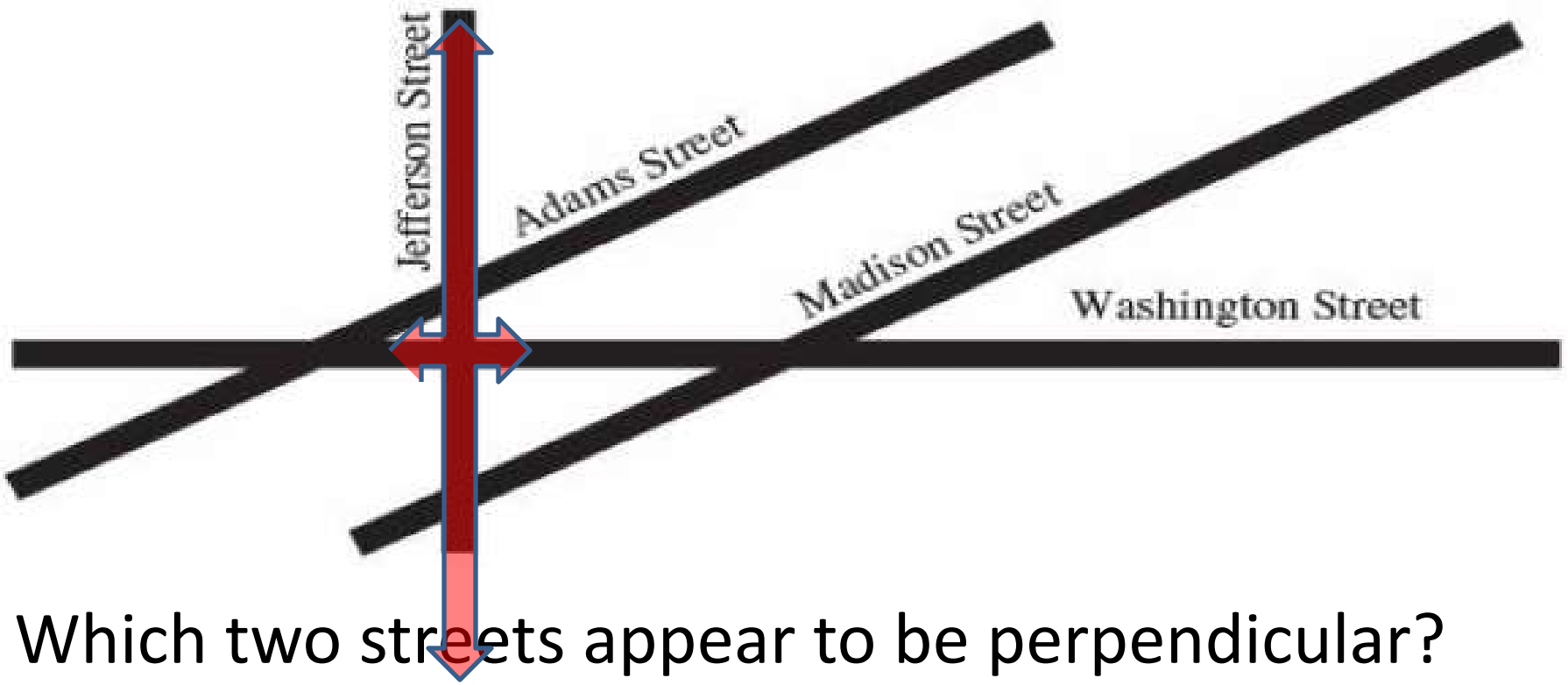
B. Adams Street and Washington Street

C. Adams Street and Madison Street

D. Jefferson Street and Madison Street

G1b. Describe parallel and perpendicular lines in plane geometric figures.

A map of four streets is shown below.



Which two streets appear to be perpendicular?

A. Jefferson Street and Washington Street

B. Adams Street and Washington Street

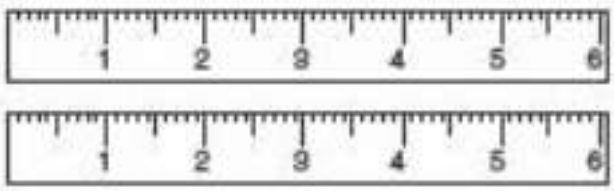
C. Adams Street and Madison Street

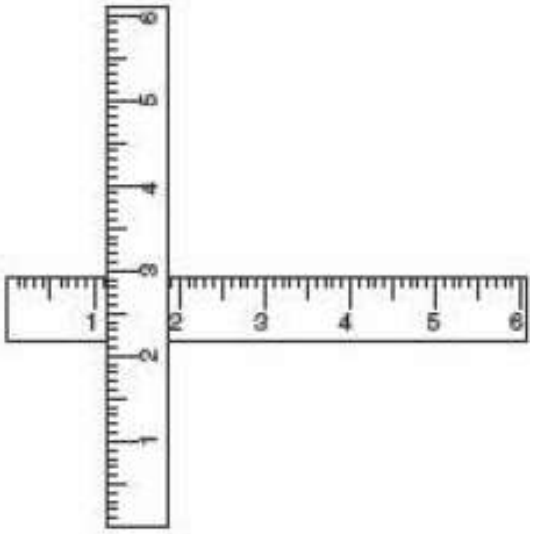
D. Jefferson Street and Madison Street

G1b. Describe parallel and perpendicular lines in plane geometric figures.

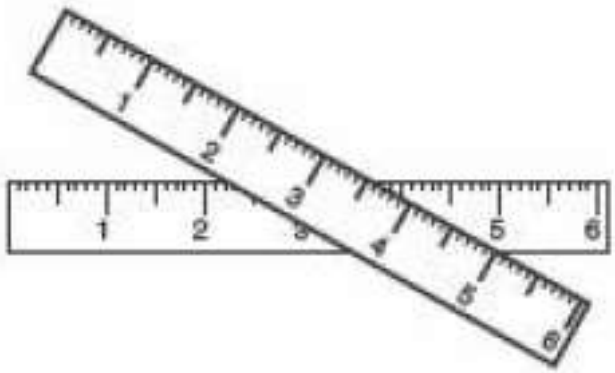
Which pair of rulers is best described as perpendicular?

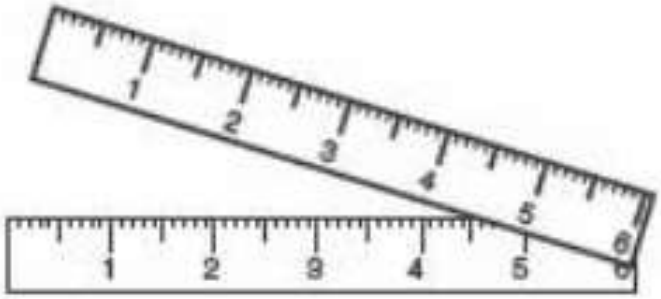
A. E





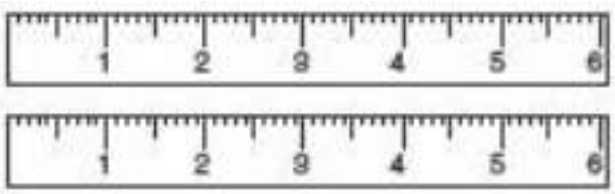
C.

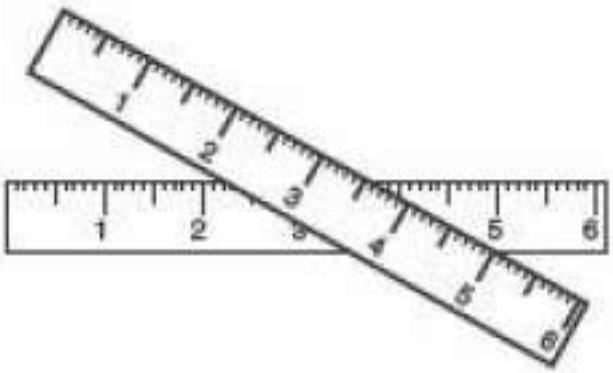


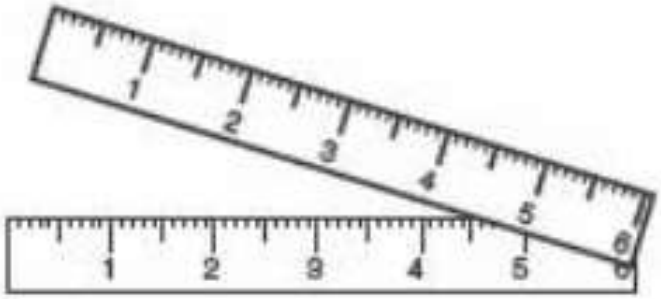


G1b. Describe parallel and perpendicular lines in plane geometric figures.

Which pair of rulers is best described as perpendicular?

A. 

C. 



G1b. Describe parallel and perpendicular lines in plane geometric figures.

Which of the following is a **true statement?**

A. Parallel lines always intersect.
B. Intersecting lines are never parallel.
C. Perpendicular lines never intersect.
D. Intersecting lines are always perpendicular.

G1b. Describe parallel and perpendicular lines in plane geometric figures.

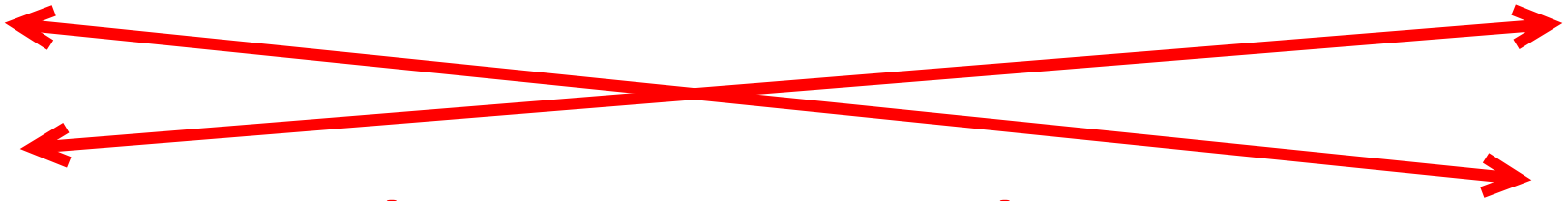
Which of the following is a **true statement?**

A. Parallel lines always intersect.

B. Intersecting lines are never parallel.

C. Perpendicular lines never intersect.

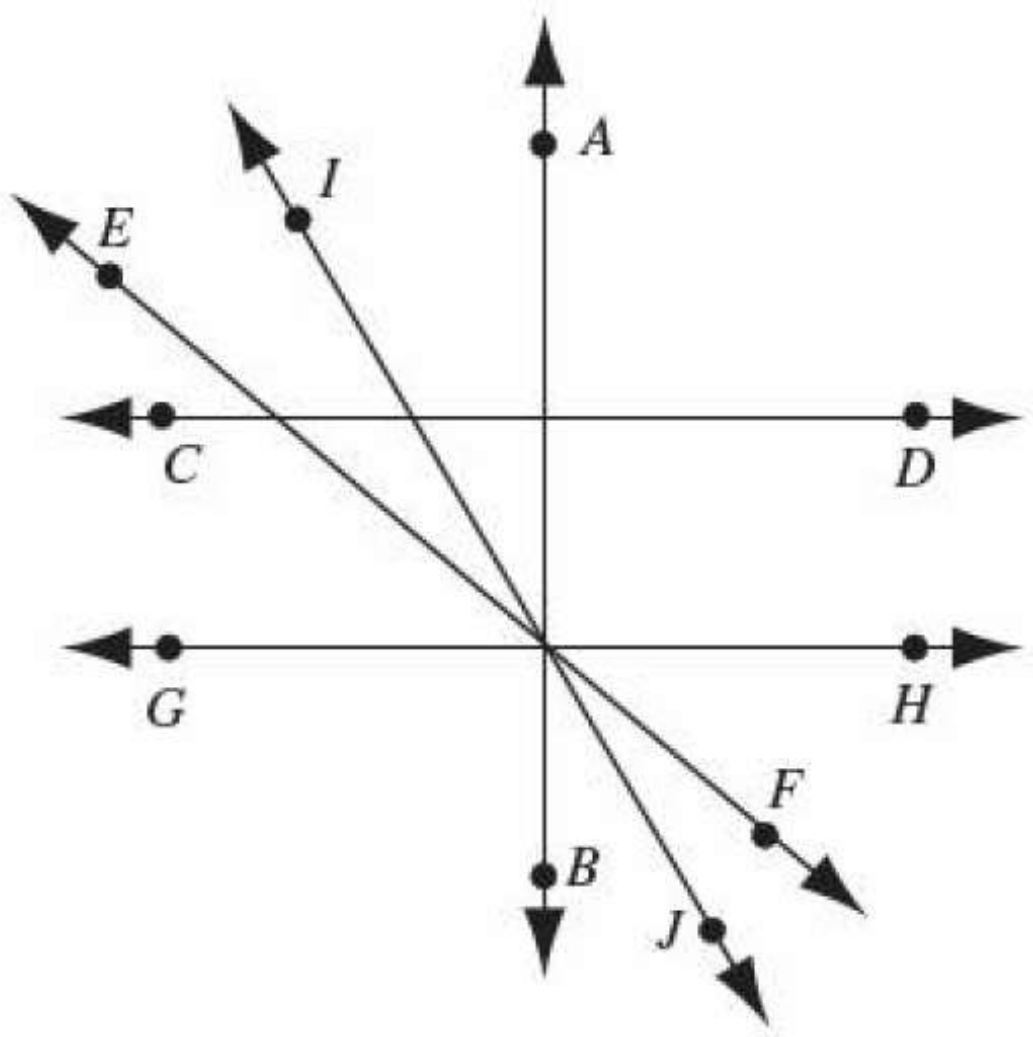
D. Intersecting lines are always perpendicular.



Intersecting lines cross or touch at some point.

G1b. Describe parallel and perpendicular lines in plane geometric figures.

Which of the following lines appears to be perpendicular to $\overleftrightarrow{CD}$?



A. $\overleftrightarrow{AB}$

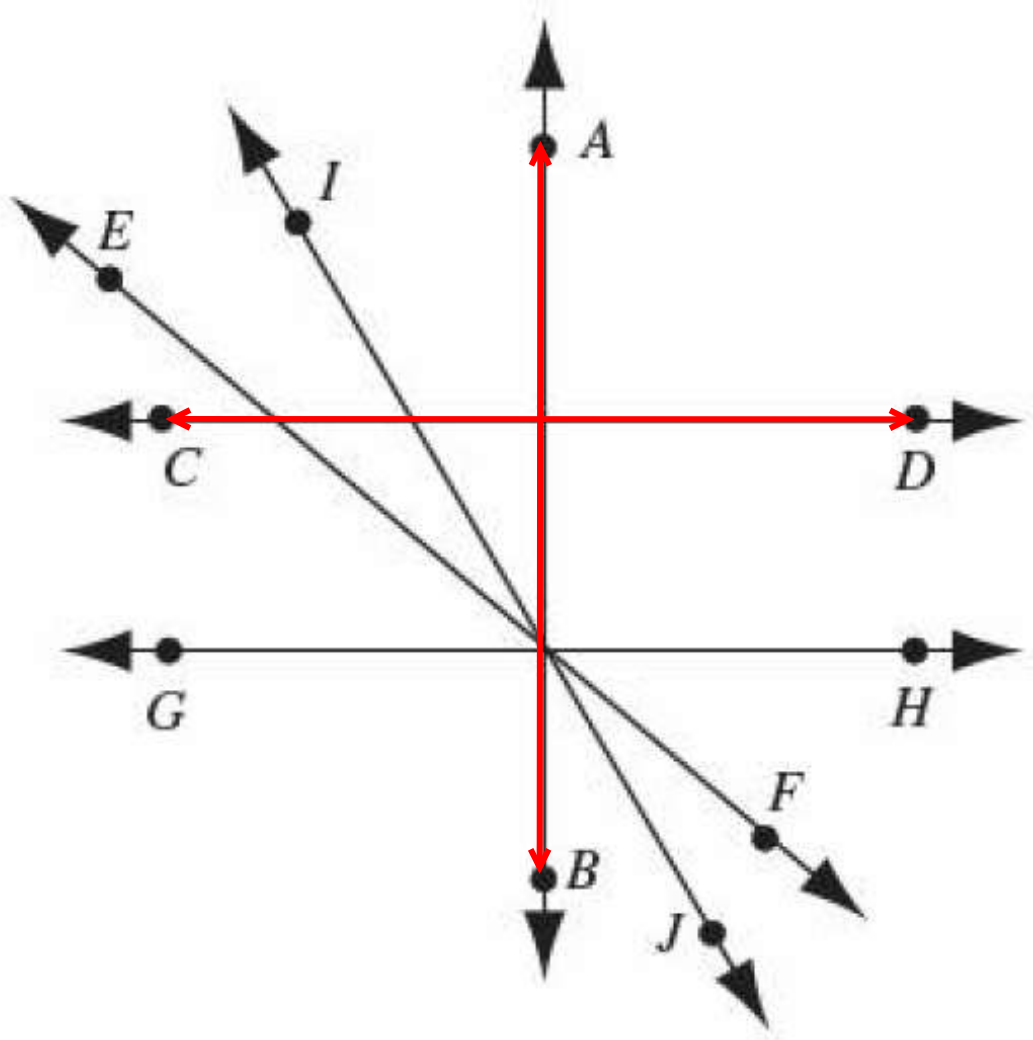
B. $\overleftrightarrow{EF}$

C. $\overleftrightarrow{GH}$

D. $\overleftrightarrow{IJ}$

G1b. Describe parallel and perpendicular lines in plane geometric figures.

Which of the following lines appears to be perpendicular to $\overleftrightarrow{CD}$?



A. $\overleftrightarrow{AB}$

B. $\overleftrightarrow{EF}$

C. $\overleftrightarrow{GH}$

D. $\overleftrightarrow{IJ}$

G1b. Describe parallel and perpendicular lines in plane geometric figures.

A given parallelogram has 4 congruent sides and one pair of opposite acute angles. What is the correct name for this parallelogram?

A. trapezoid
B. rectangle
C. rhombus
D. square

G1c. Examine and classify quadrilaterals (including parallelograms, squares, rectangles, trapezoids, and rhombi) by their properties.

A given parallelogram has **4 congruent sides** and **one pair of opposite acute angles**. What is the correct name for this parallelogram?

A. trapezoid 2 p f congruent sides

B. rectangle ngles

C. rhombus

D. square a ht angles

G1c. Examine and classify quadrilaterals (including parallelograms, squares, rectangles, trapezoids, and rhombi) by their properties.

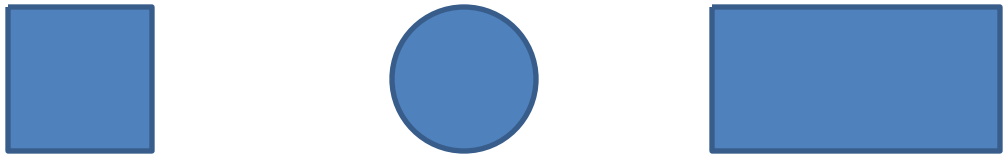
Which three shapes from this group are quadrilaterals?
{square, circle, rectangle, triangle, rhombus}

A. square, triangle, rhombus
B. circle, rectangle, rhombus
C. triangle, rhombus, circle
D. rectangle, square, rhombus

G1d. Compare and contrast the relationships among quadrilaterals

Which three shapes from this group are quadrilaterals **(4 sided polygon)**?

square circle rectangle



triangle rhombus

A. square, triangle, rhombus

B. circle, rectangle, rhombus

C. triangle, rhombus, circle

D. rectangle, square, rhombus

G1d. Compare and contrast the relationships among quadrilaterals

Which quadrilateral has exactly one pair of parallel sides?

A. square
B. rectangle
C. rhombus
D. trapezoid

G1d. Compare and contrast the relationships among quadrilaterals

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B. rectangle 

C. rhombus 

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B. rectangle
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B. rectangle 

C. rhombus2 ang e acute. 

D. trapezoid 

G1d. Compare and contrast the relationships among quadrilaterals

Look at the two figures. Which statement correctly compares the edges of the figures?

A. Figure A has more edges than figure B.
B. Figure A has fewer edges than figure B.
C. Figure B has longer edges than figure A.
D. Figure B has shorter edges than figure B

G2a. Compare and contrast a cube and a rectangle prism in terms of the number and shape of their faces, edges, and vertices.

Look at the two figures. Which statement correctly compares the edges of the figures?

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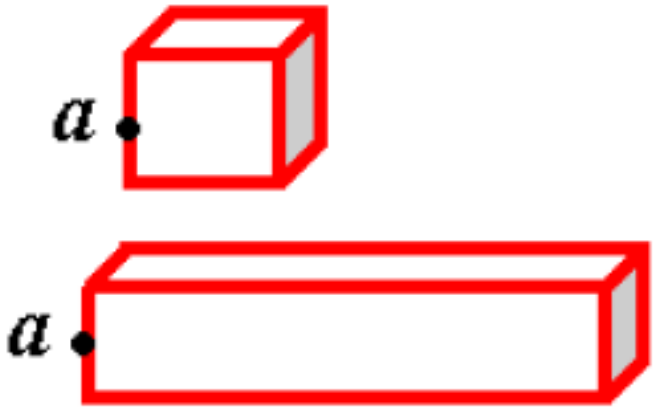
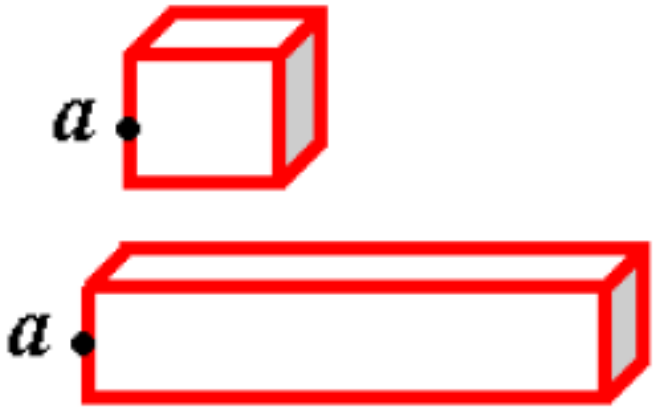


Which of these BEST describes the location of Point *a in the two figures?*

A. on a vertex
B. on an edge
C. in the center of a face
D. in the center of a base

G2a. Compare and contrast a cube and a rectangle prism in terms of the number and shape of their faces, edges, and vertices.



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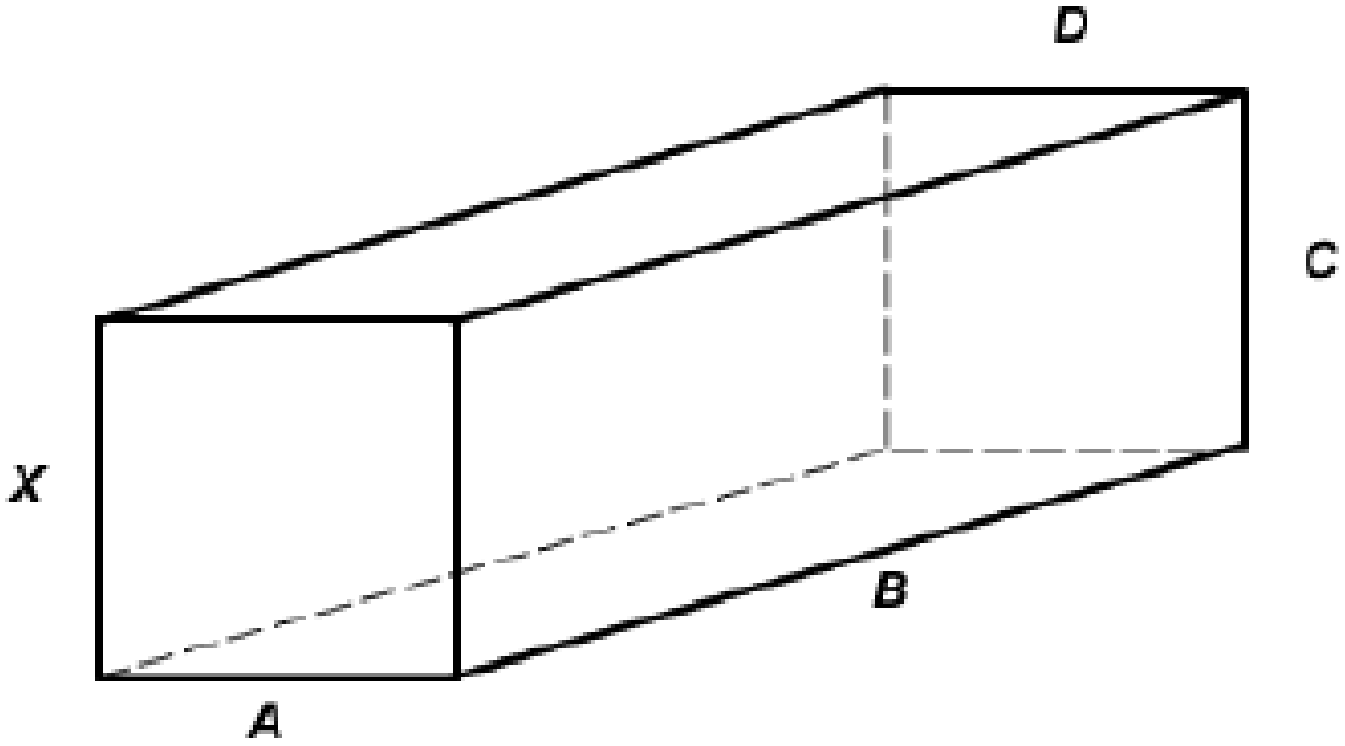
G2a. Compare and contrast a cube and a rectangle prism in terms of the number and shape of their faces, edges, and vertices.

Which edge is parallel to edge X?



A. A

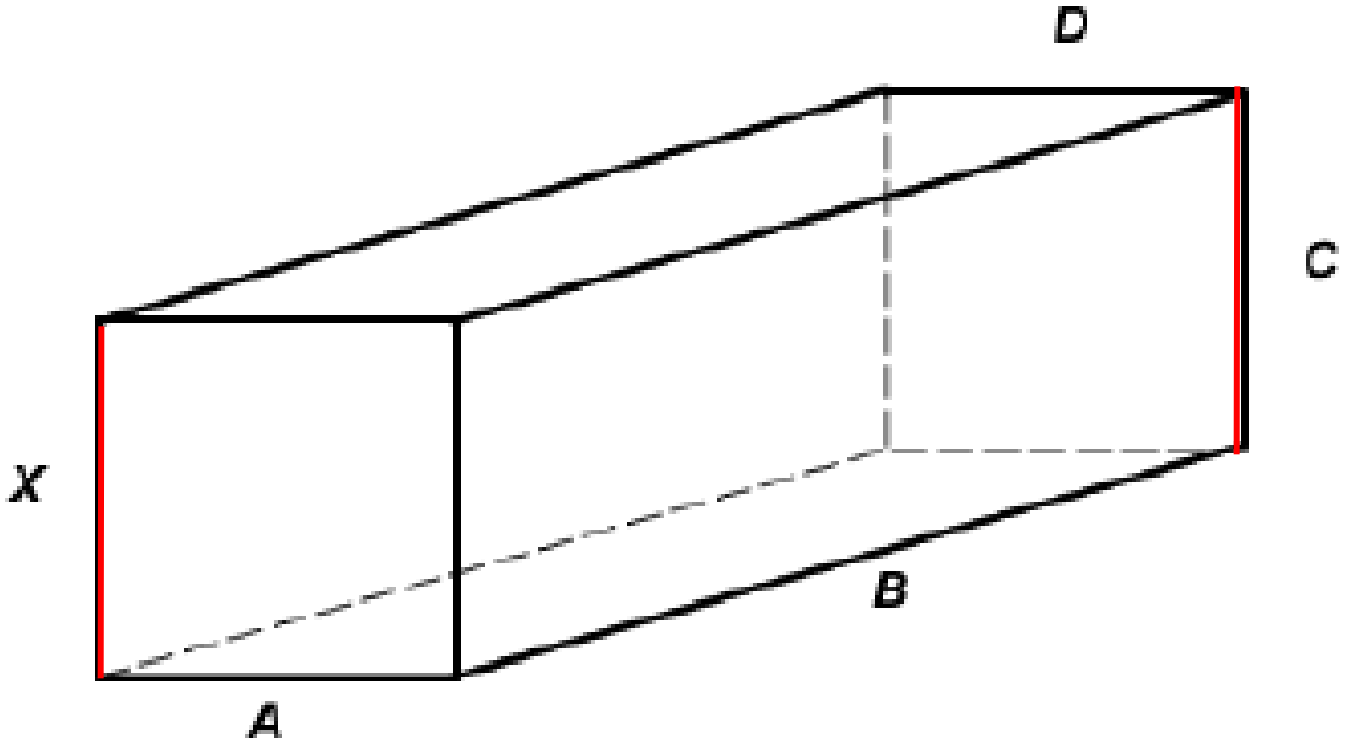
B. B

C. C

D. D

G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

Which edge is **parallel to edge X**?



A. A

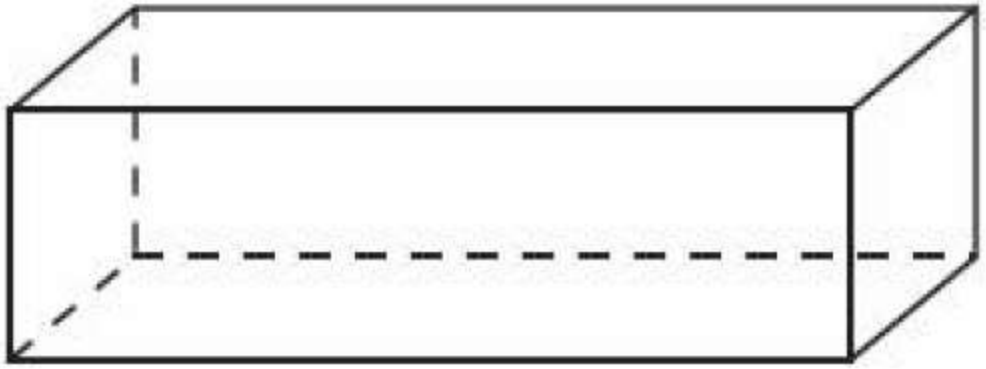
B. B

C. C

D. D

G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

How many faces does the figure shown below have?



A. 6
B. 5
C. 4
D. 3

G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

How many faces does the figure shown below have?

Count the faces (planes).

A. 6

B. 5

C. 4

D. 3

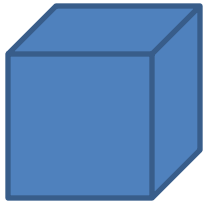
G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

Which solid could *not have two parallel faces?*

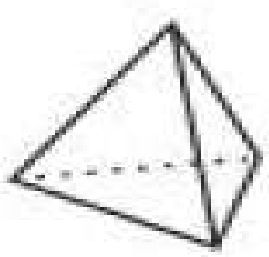
A. Cube
B. Rectangular prism
C. Pyramid
D. Cylinder

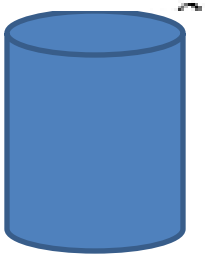
G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

Which solid could ***not*** *have two parallel faces?*

A. Cube 

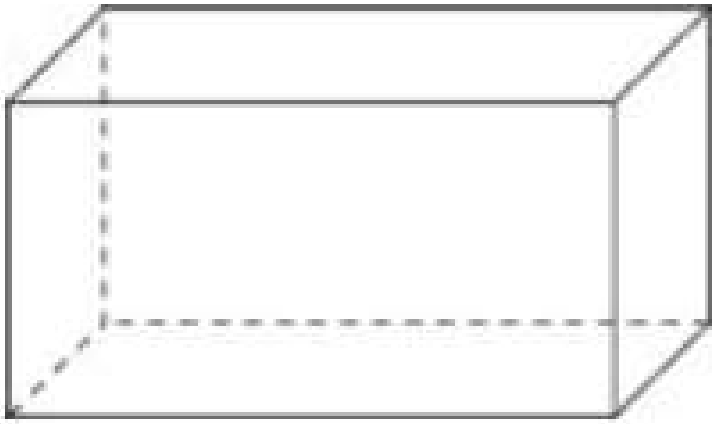
B. Rectangular prism 

C. Pyramid 

D. Cylinder 

G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

How many edges does the figure shown below have?

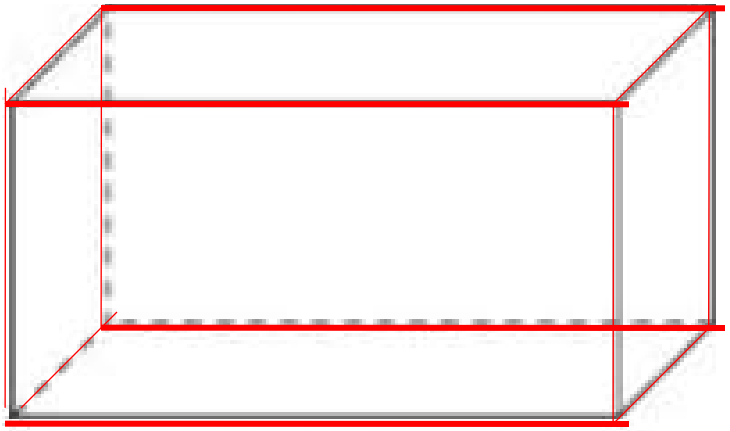


A. 6
B. 8
C. 12
D. 13

G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

How many edges does the figure shown below have?

Count edges.



A. 6

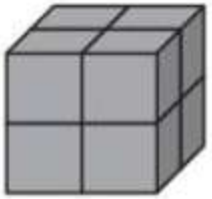
B. 8

C. 12

D. 13

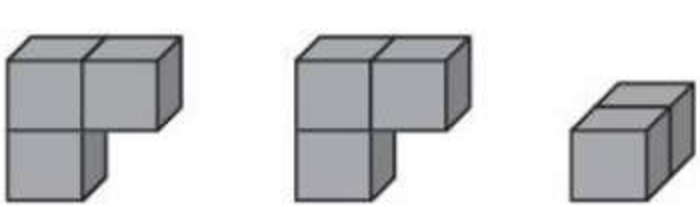
G2b. Describe parallel and perpendicular lines and planes in connection with the rectangular prism.

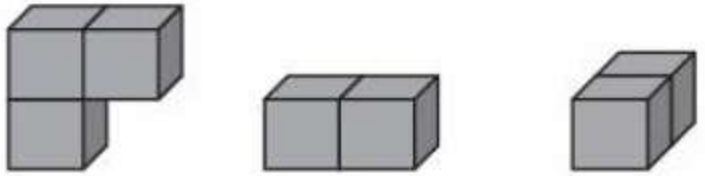
The cube shown below was cut into three pieces.



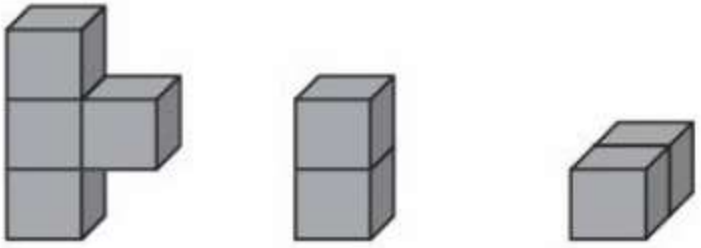
Which of the following groups could be the three pieces of the cube?

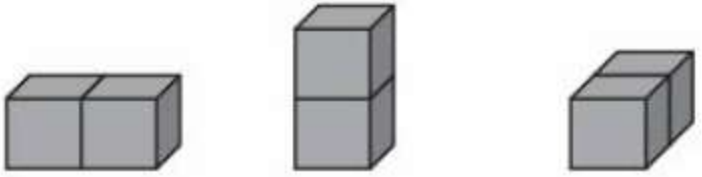
A.B.





C.D.

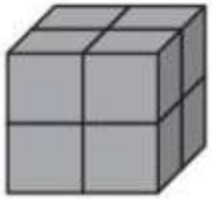




G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

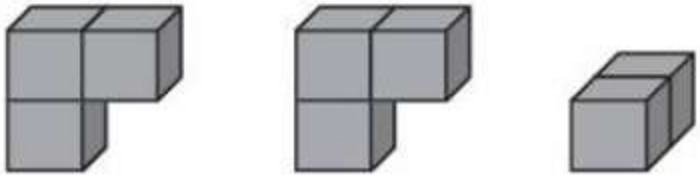
The cube shown below was cut into three pieces.

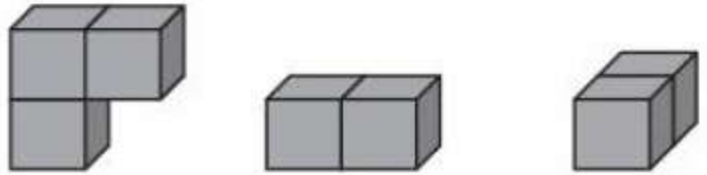
Count the smaller cubes.

There are 8 cubes, 2 rows with 4 or  **row.**

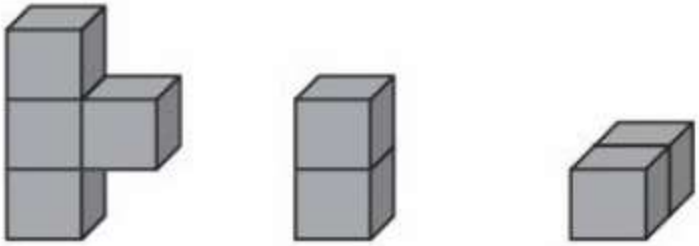
Which of the following groups could be the three pieces of the cube?

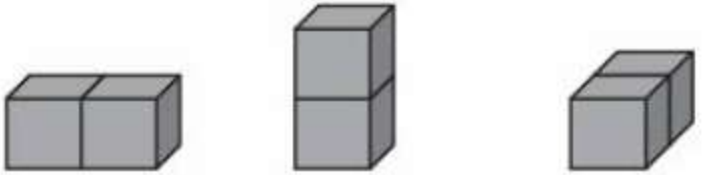
A.B.





C.D.





In stack the cubes.

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Joe cut three shapes out of paper. He has two circles that are the same size and one rectangle with two sides equal in length to the circumference of the circles. Which shape can Joe MOST LIKELY form?

A. cube
B. cone
C. prism
D. cylinder

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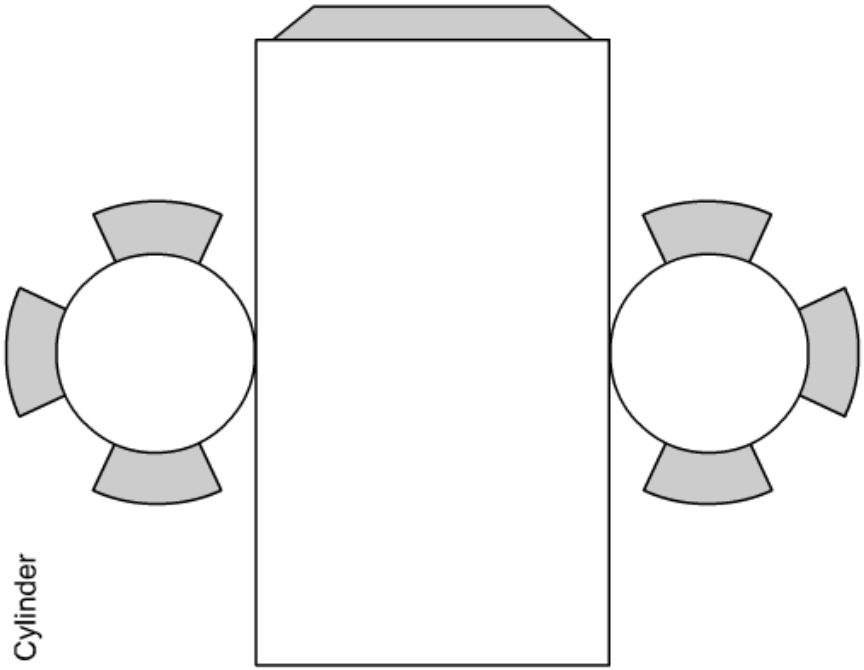

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Ms. Talbot taught her class to make paper models of geometric figures. Each student created a closed figure with a square base, five vertices, and four triangular faces. Which geometric figure did Ms. Talbot's class create?

A. Triangular Prism
B. Rectangular Prism
C. Triangular Pyramid
D. Rectangular Pyramid

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

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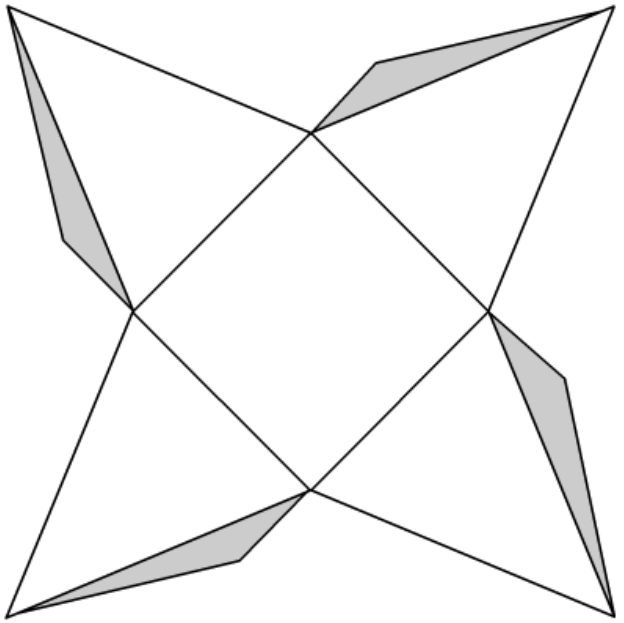
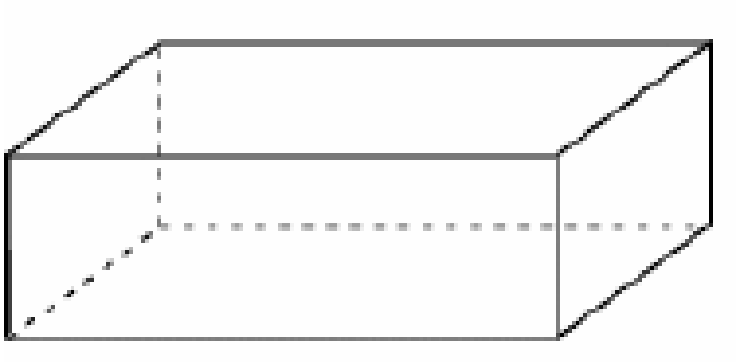


A. Triangular Prism
B. Rectangular Prism
C. Triangular Pyramid
D. Rectangular Pyramid

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

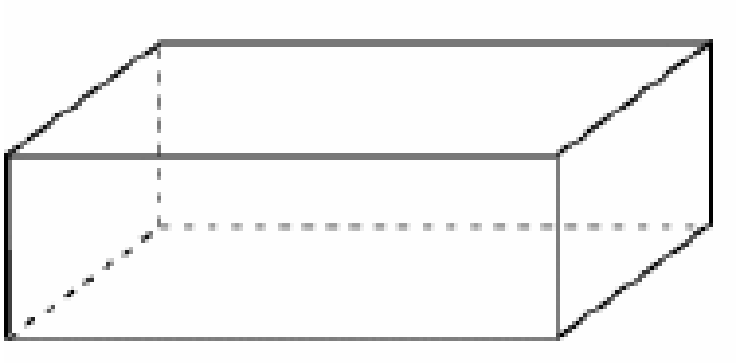
What combination of shapes would you need to create this three dimensional shape?



A. 2 squares, 2 rectangles
B. 2 squares, 4 rectangles
C. 4 rectangles
D. 6 rectangles

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

What combination of shapes would you need to create this three dimensional shape?



A. 2 squares, 2 rectangles

B. 2 squares, 4 rectangles

C. 4 rectangles

D. 6 rectangles

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Which solid could not have two parallel faces?

A. Cube
B. Rectangular prism
C. Pyramid
D. Cylinder

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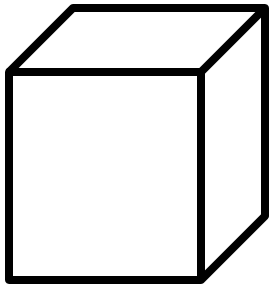
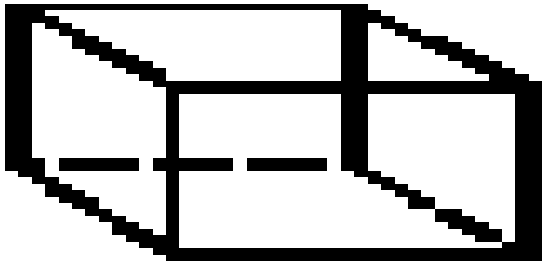
Which solid **could not have two parallel faces**?

A. Cube

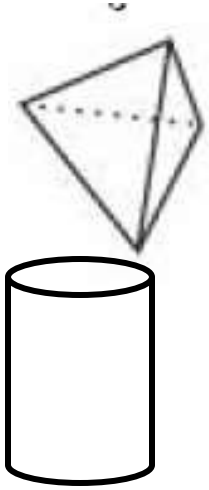


B. Rectangular prism



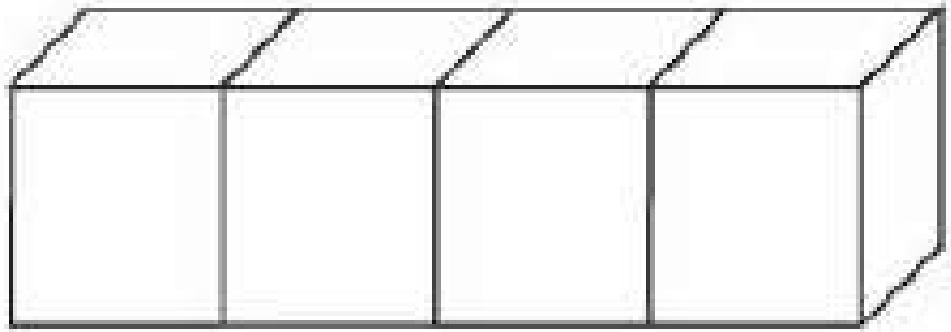
C. Pyramid

D. Cylinder



G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Ms. Crow glued 4 white cubes together as shown below. Then she painted the entire figure red.



How many [illegible] painted red?

A. 4

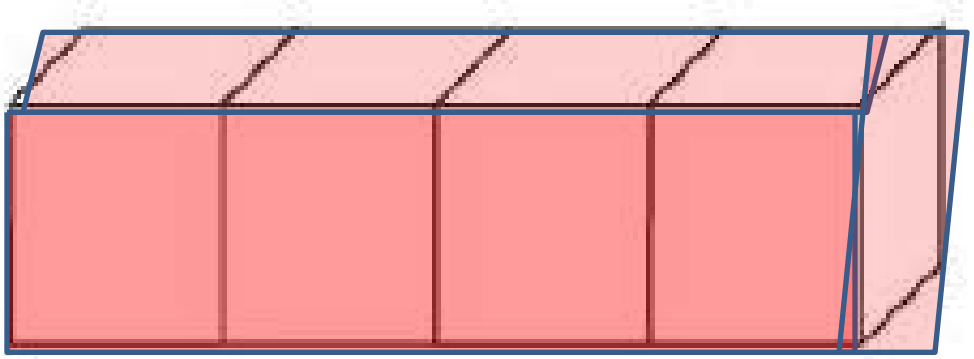
B. 9

C. 18

D. 24

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Ms. Crow glued 4 white cubes together as shown below. Then she painted the entire figure red.



How many faces of the 4 cubes were painted red?

Count the faces that are seen, multiply by 2 to include the other ½ of the faces that can't be seen.

A. 4

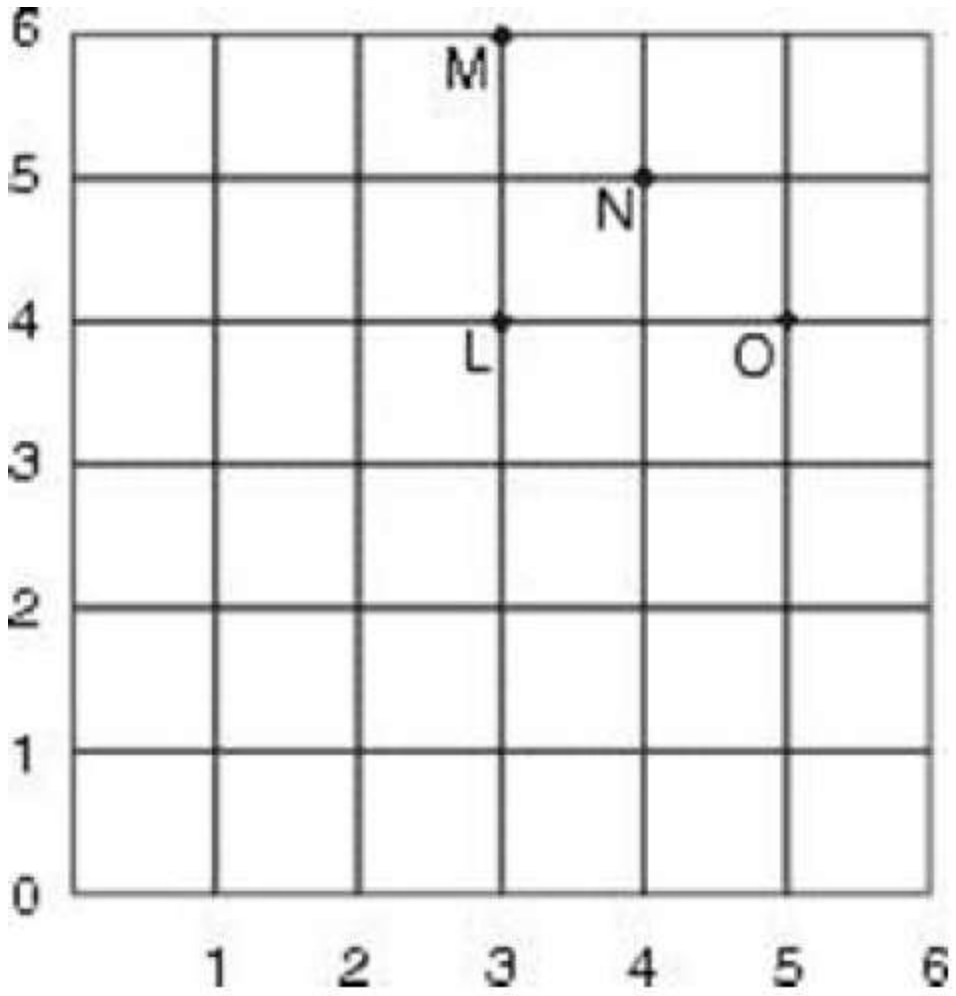
B. 9

C. 18

D. 24

G2c. Build/collect models for solid geometric figures (cubes, prisms, cylinders, pyramids, spheres, and cones) using nets and other representations.

Look at the grid below. What is the ordered pair at point M?

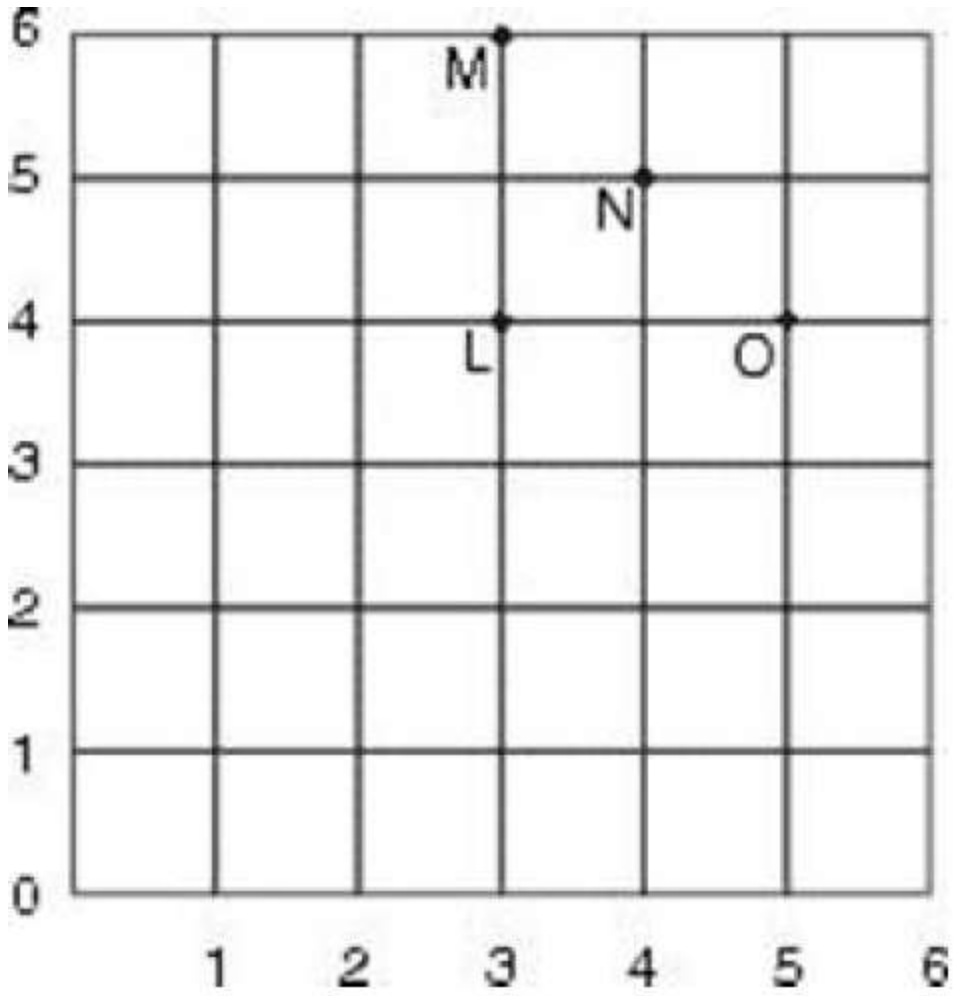


A. (3, 4)
B. (3, 6)
C. (4, 5)
D. (5, 4)

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

Look at the grid below. What is the ordered pair at point M?

Across 3, up 6



A. (3, 4)

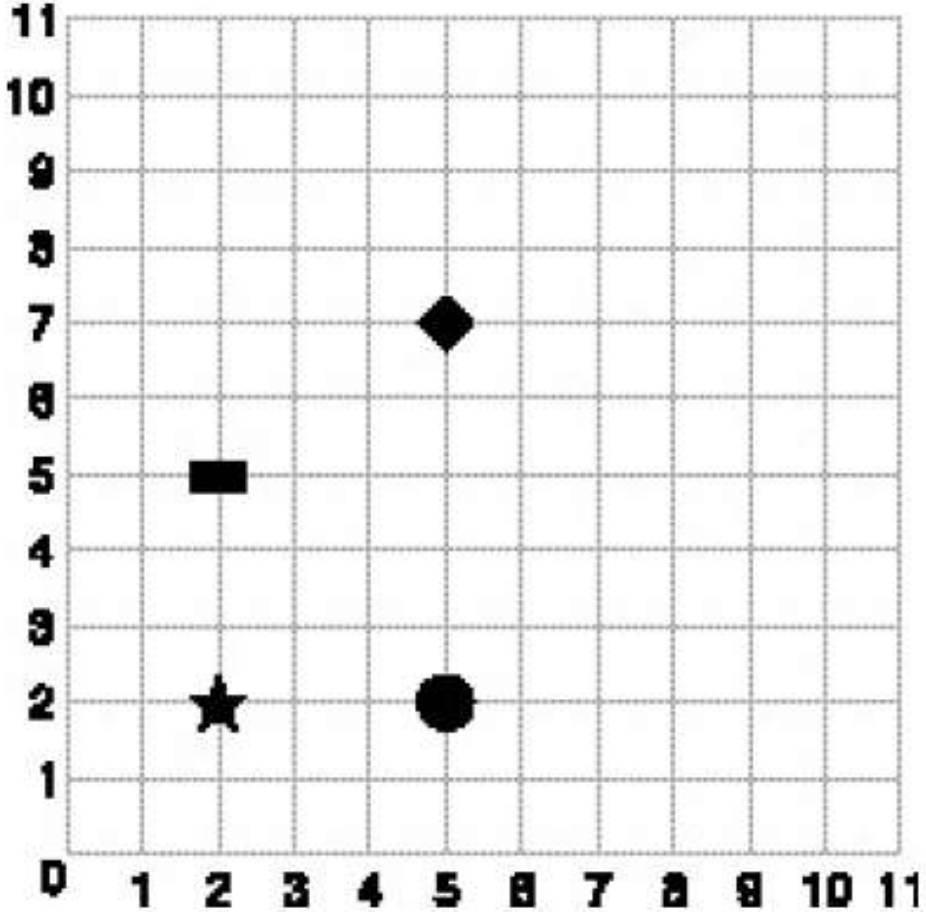
B. (3, 6)

C. (4, 5)

D. (5, 4)

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

Use the graph below to answer this question.
Which shape is located at (5,2)?



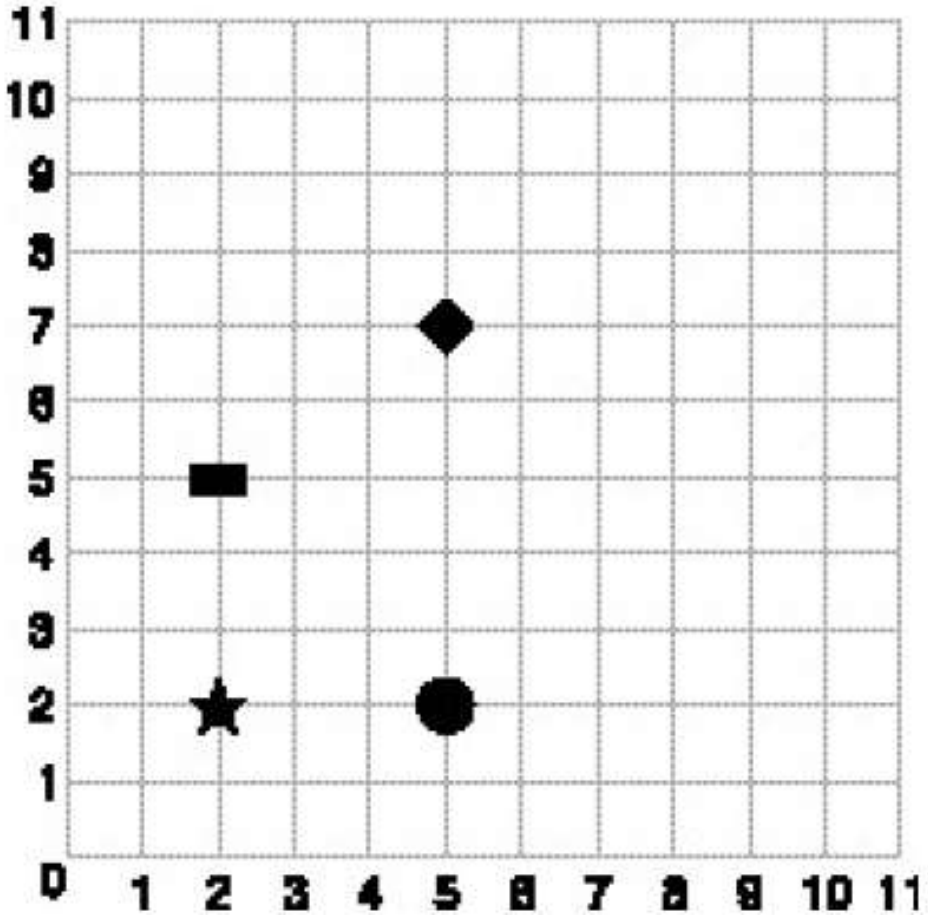
A. circle
B. rectangle
C. star
D. diamond

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

Use the graph below to answer this question.

Which shape is located at (5,2)?

Across 5, up 2



A. circle

B. rectangle

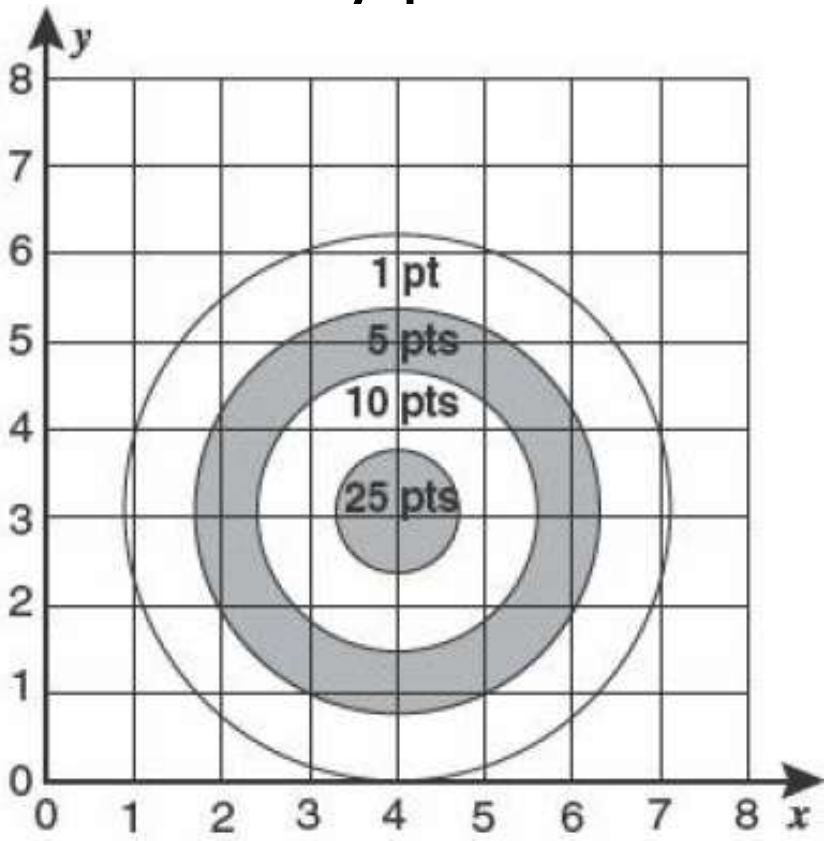
C. star

D. diamond

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

The figure below shows a coordinate grid placed over an archery target. Each ring of the target is labeled with the number of points the player will earn if an arrow lands in that ring.

Lyle's arrow landed at (3, 4). How many points should he have earned with that arrow?

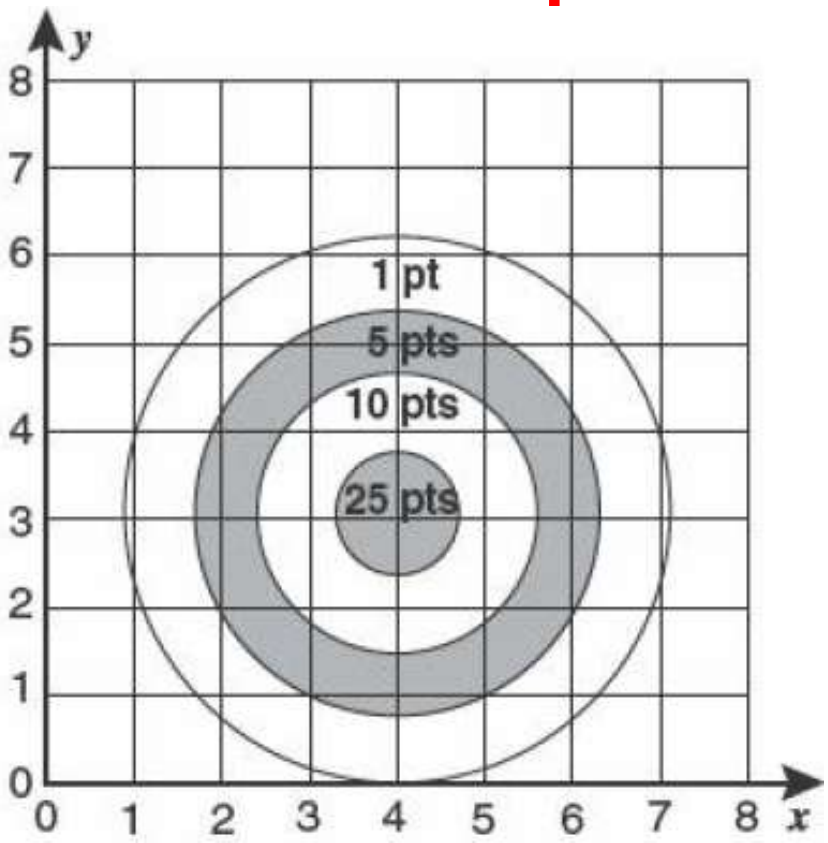


A. 1
B. 5
C. 10
D. 25

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

The figure below shows a coordinate grid placed over an archery target. Each ring of the target is labeled with the number of points the player will earn if an arrow lands in that ring.

Lyle's arrow landed at (3, 4), **across 3 then up 4**. How many points should he have earned with that arrow?



A. 1

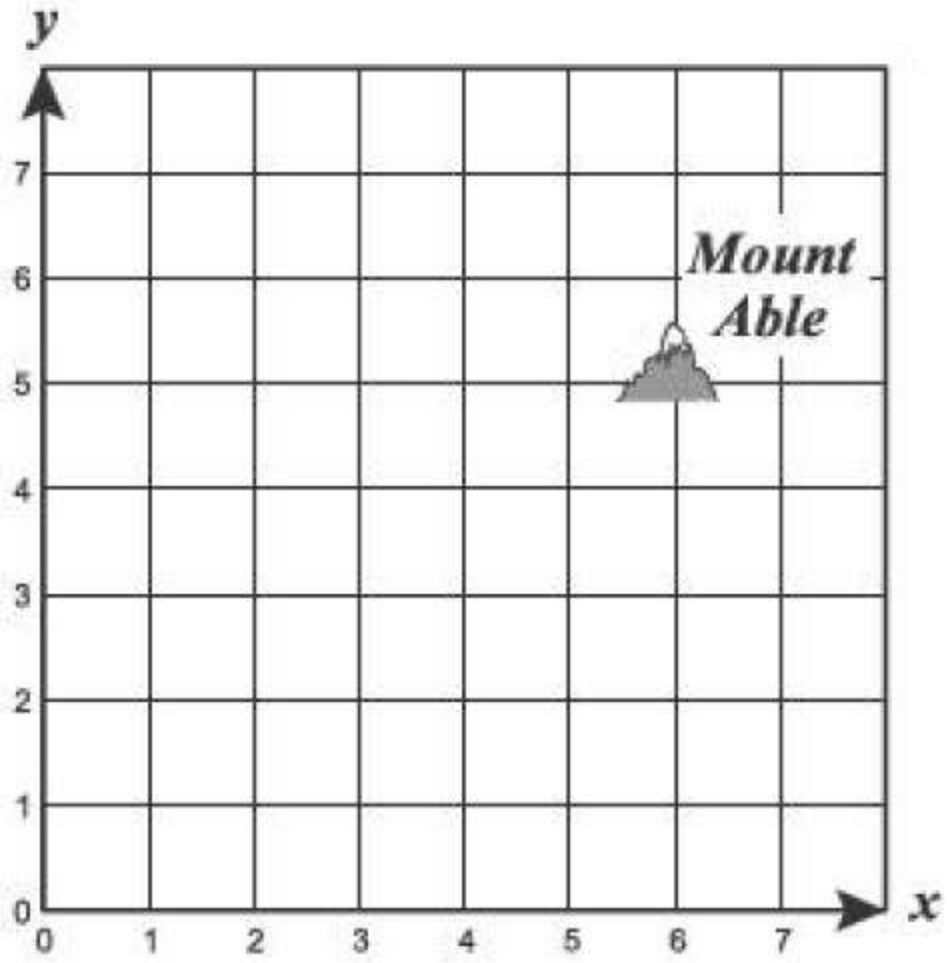
B. 5

C. 10

D. 25

G3a. Understand and apply ordered pairs in the first quadrant of the coordinate system.

Which coordinates best describe the location of Mount Able?



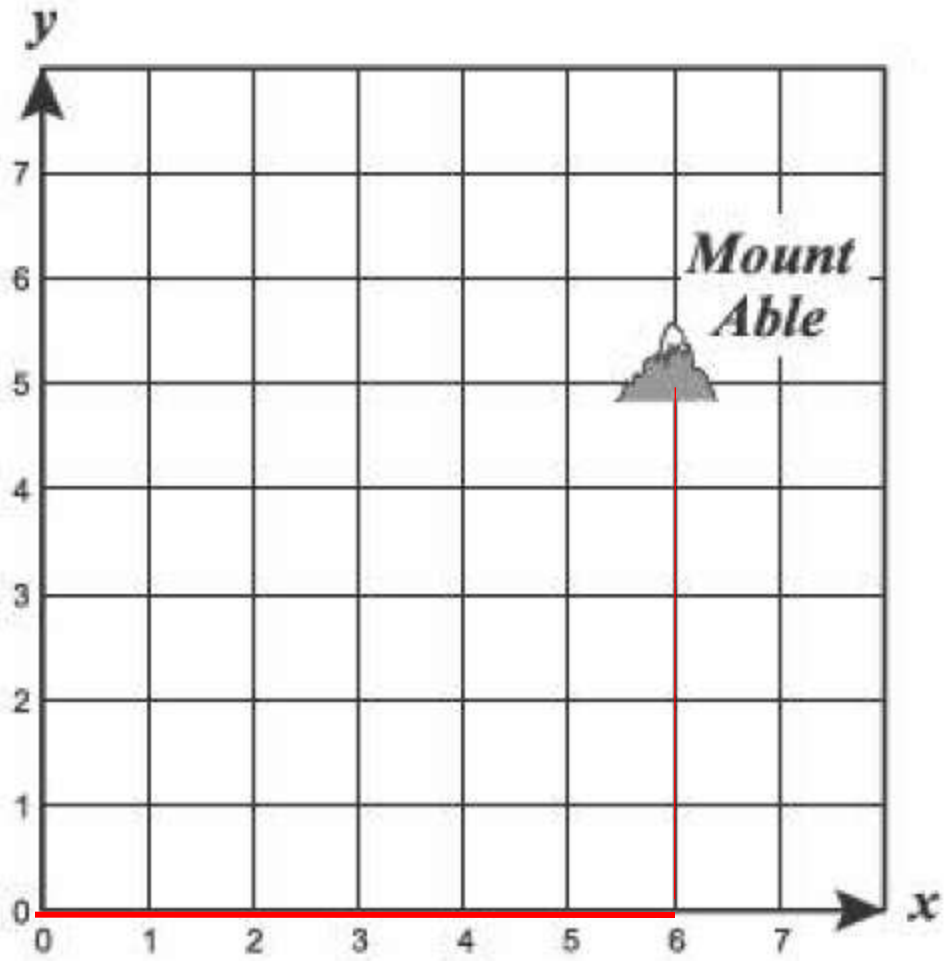
A. (5, 6)
B. (5, 5)
C. (6, 5)
D. (6, 6)

G3b. Locate a point in the first quadrant in the coordinate plane and name the ordered pair.

Which coordinates best describe the location of Mount Able?

Go to the right 6

Go up 5



A. (5, 6)

B. (5, 5)

C. (6, 5)

D. (6, 6)

G3b. Locate a point in the first quadrant in the coordinate plane and name the ordered pair.

About how much does an apple weigh?

A. 4 grams
B. 4 kilograms
C. 4 ounces
D. 4 pounds

M1a. Use standard and metric units to measure the weight of objects.

About how much does an apple weigh?

A. 4 grams
B. 4 kilograms
C. 4 ounces
D. 4 pounds

M1a. Use standard and metric units to measure the weight of objects.

Which unit could be used for measuring the weight of a rock?

A. Square inch
B. Mile
C. Milliliter
D. Kilogram

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which unit could be used for measuring the weight of a rock?

A. Square inch area measurement
B. Mile long distance measurement
C. Milliliter liquid measurement for small amounts
D. Kilogram

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which unit could be used to measure the mass of a pencil?

A. centimeters
B. grams
C. liters
D. degrees

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which unit could be used to measure the mass of a pencil?

A. centimeters length measurement

B. grams

C. liters capacity measurement

D. degrees temperature and angles measurement

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which set of units would BEST be used to measure the weight of a large dog?

A. pounds or tons
B. grams or milligrams
C. pounds or kilograms
D. ounces or milligrams

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which set of units would BEST be used to measure the weight of a large dog?

A. pounds or tons
B. grams or milligrams
C. pounds or kilograms
D. ounces or milligrams

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which is MOST LIKELY the weight of a dog?

A. 15 kilograms
B. 15 grams
C. 150 kilograms
D. 150 grams

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which is MOST LIKELY the weight of a dog?

A. 15 kilograms

B. 15 grams

C. 150 kilograms

D. 150 grams

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which unit would be BEST used to measure the weight of one carrot?

A. centimeter
B. kilogram
C. gram
D. meter

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

Which unit would be BEST used to measure the weight of one carrot?

A. centimeter about the distance across the finger
B. kilogram measures large weight (1,000 grams)
C. gram
D. meter about the distance from the doorknob to the floor

M1b. Know units used to measure weight (gram, kilogram, ounces, pounds and tons)

In the metric system of measurement 1,000 grams is equal to

A. 1 kilogram.
B. 10 kilograms.
C. 1 milligram.
D. 100 milligrams.

M1c. Compare one unit to another within a single system of measurement.

In the metric system of measurement 1,000 grams is equal to

"Kilo" means 1,000

A. 1 kilogram.

B. 10 kilograms.

C. 1 milligram.

D. 100 milligrams.

M1c. Compare one unit to another within a single system of measurement.

Julianne's cereal contains 8 grams of fiber. How many milligrams of fiber are in Julianne's cereal?

A. 0.8 milligrams
B. 0.008 milligrams
C. 800 milligrams
D. 8,000 milligrams

M1c. Compare one unit to another within a single system of measurement.

Julianne's cereal contains **8 grams** of fiber. How many **milligrams** of fiber are in Julianne's cereal?

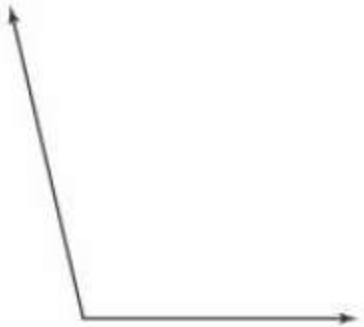
1 gram = 1,000 milligrams
8 grams = 8,000 milligrams

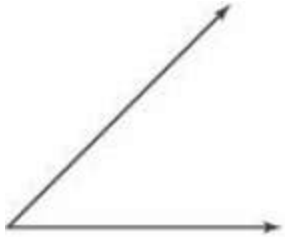
A. 0.8 milligrams
B. 0.008 milligrams
C. 800 milligrams
D. 8,000 milligrams

M1c. Compare one unit to another within a single system of measurement.

Which of the following measures closest to 45^0?

A. 



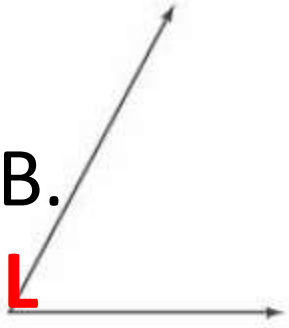
C. 

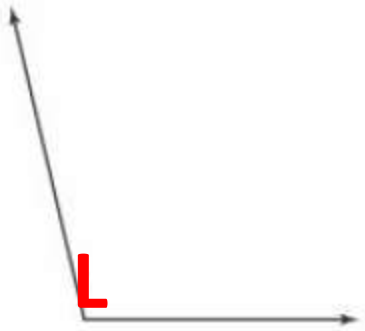
M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

Which of the following measures closest to 45^0?

Compare each angle to 90^0 right angle (L)

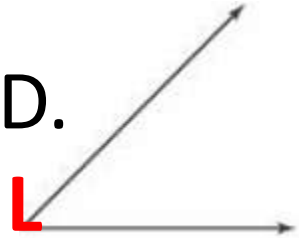
A. B.





These are too close to 90^0. This is greater than 90^0.

C. D.

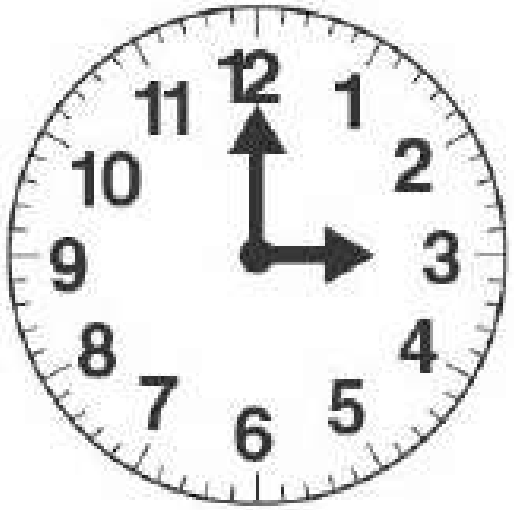


This is about halfway.

This is too small.

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

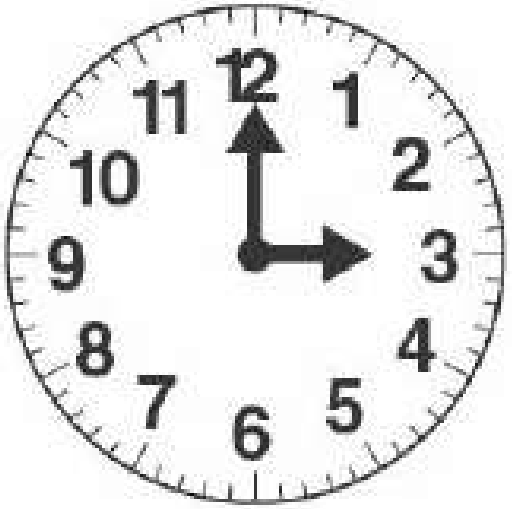
What type of angle is formed between the hands of the clock shown below?



A. Right
B. Acute
C. Obtuse
D. Straight

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

What type of angle is formed between the hands of the clock shown below?

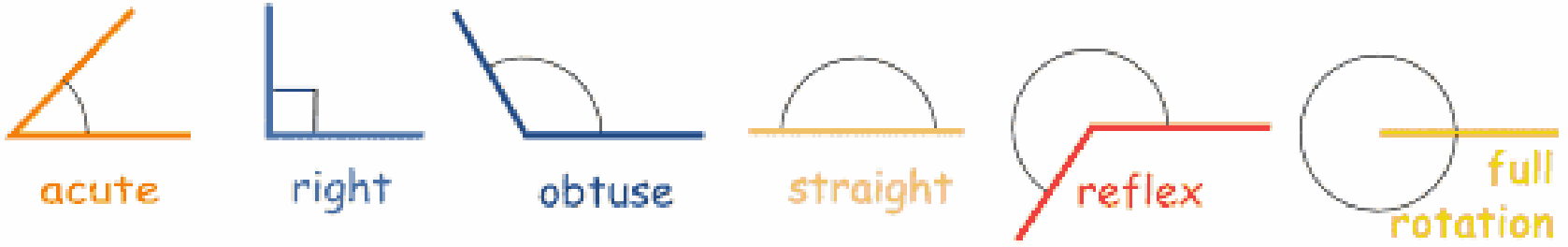


A. Right

B. Acute

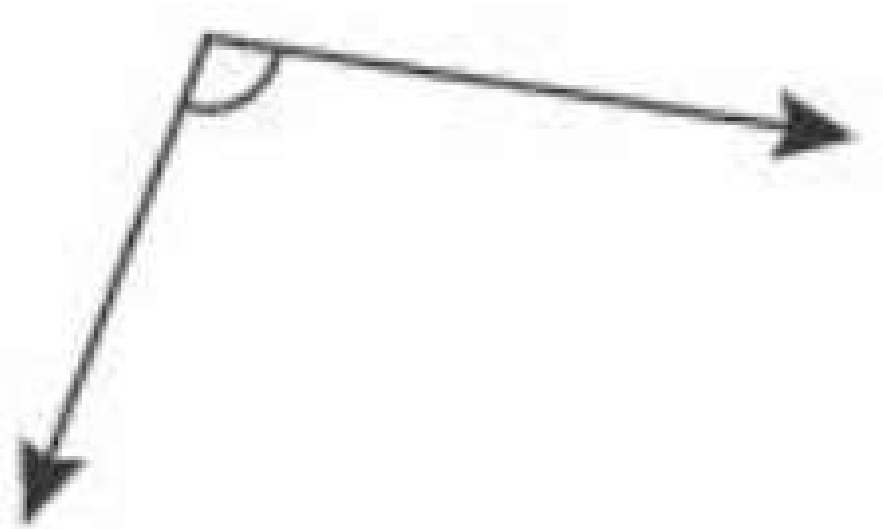
C. Obtuse

D. Straight



M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

The measure of the angle shown is —



A. between 0^0 and 45^0

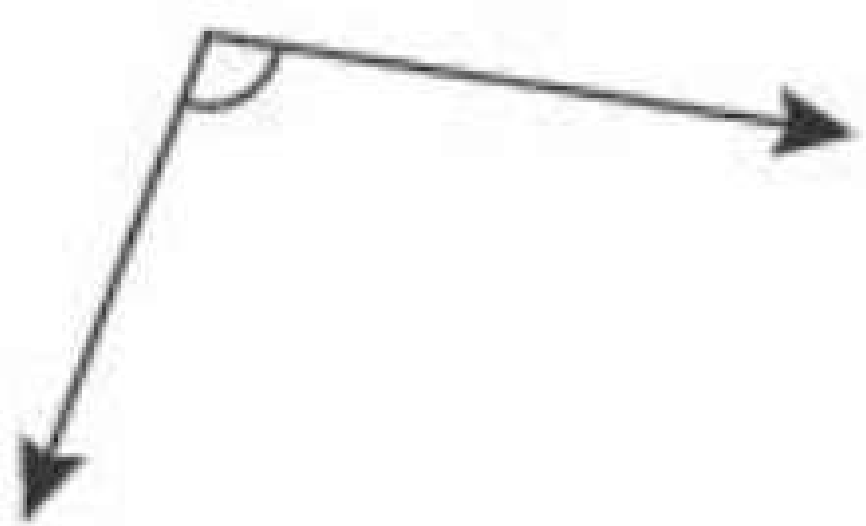
B. between 45^0 and 90^0

C. between 90^0 and 180^0

D. greater than 180^0

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

The measure of the angle shown is —



A. between 0^0 and 45^0

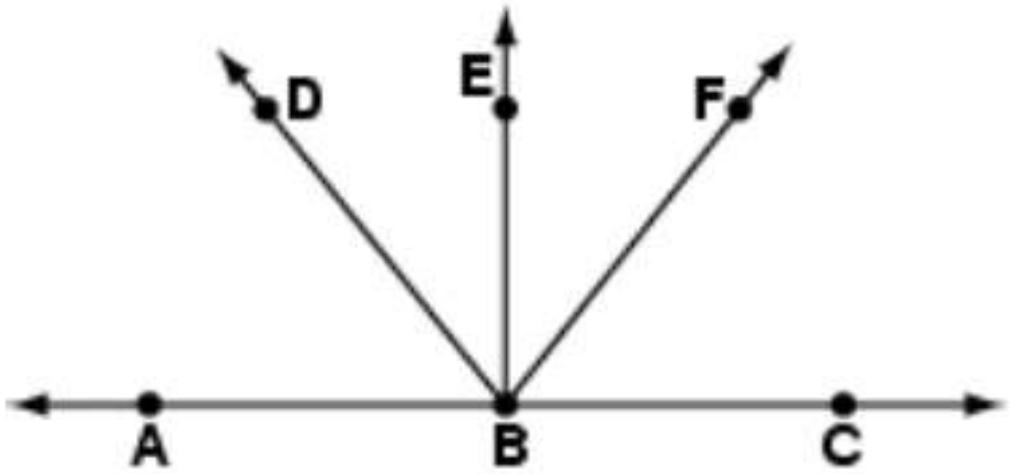
B. between 45^0 and 90^0

C. between 90^0 and 180^0 (obtuse angle)

D. greater than 180^0

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

Identify an obtuse angle from the picture below.



A. ∠ ACD

B. ∠ DBC

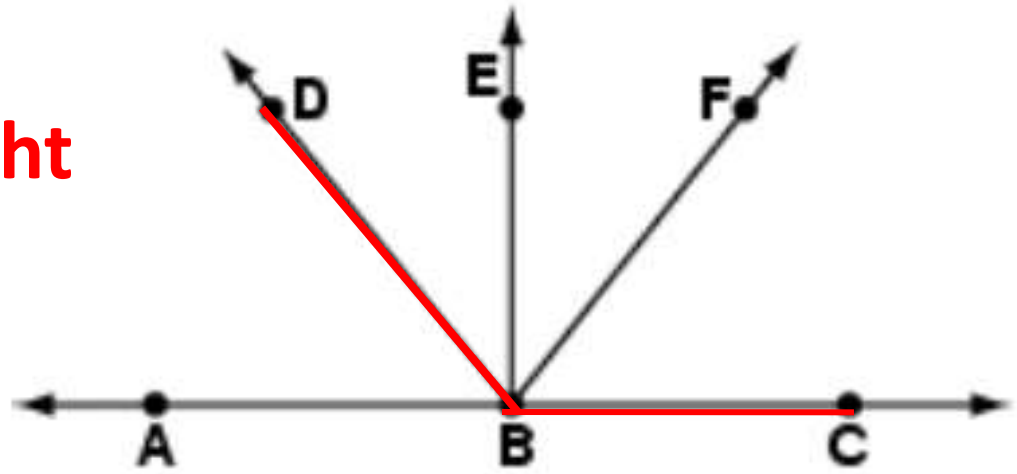
C. ∠ EBC

D. ∠ FBC

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

Identify an obtuse angle from the picture below.

Obtuse angles are greater than 90^0 (a right angle) and less than a straight angle (180^0).



A. ∠ ACD

B. ∠ DBC

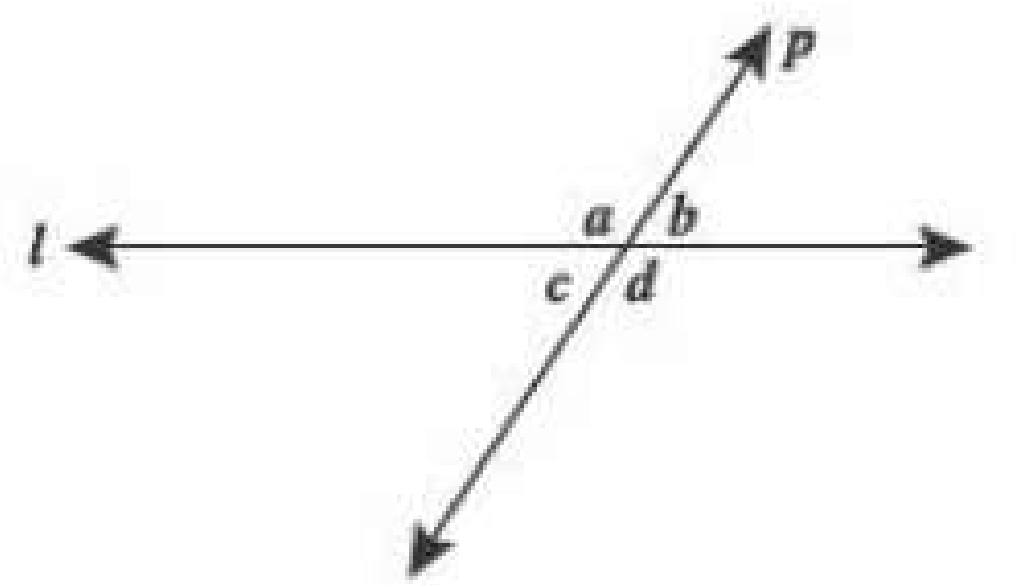
C. ∠ EBC

D. ∠ FBC

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

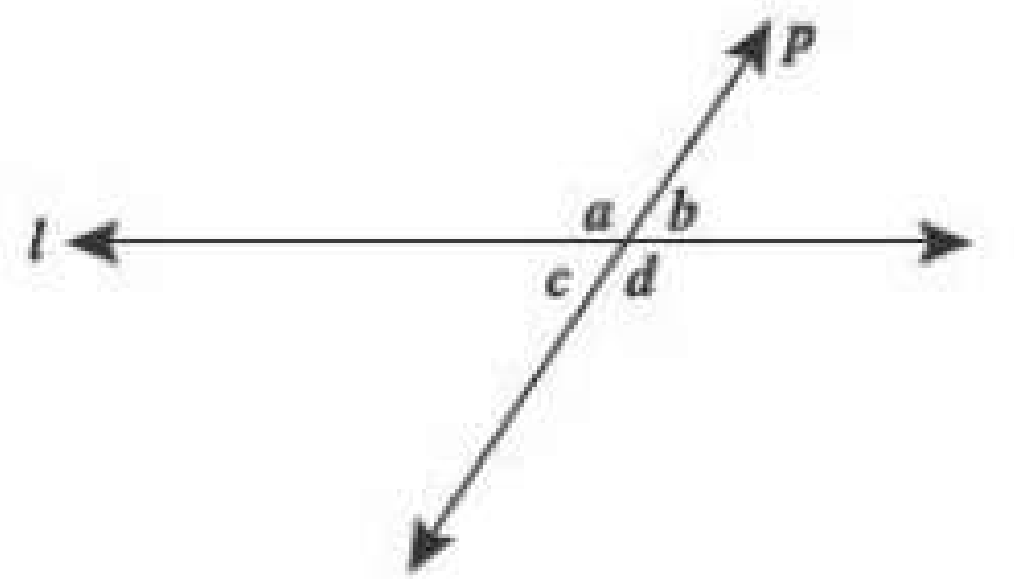
In the diagram below, lines *l and p intersect.*
If the measure of $\angle a$ is 109^0, what is the measure of $\angle b$?

A. 109^0
B. 100^0
C. 71^0
D. 19^0



M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

In the diagram below, lines *l and p intersect.*
If the measure of $\angle a$ is 109^0, what is the measure of $\angle b$?

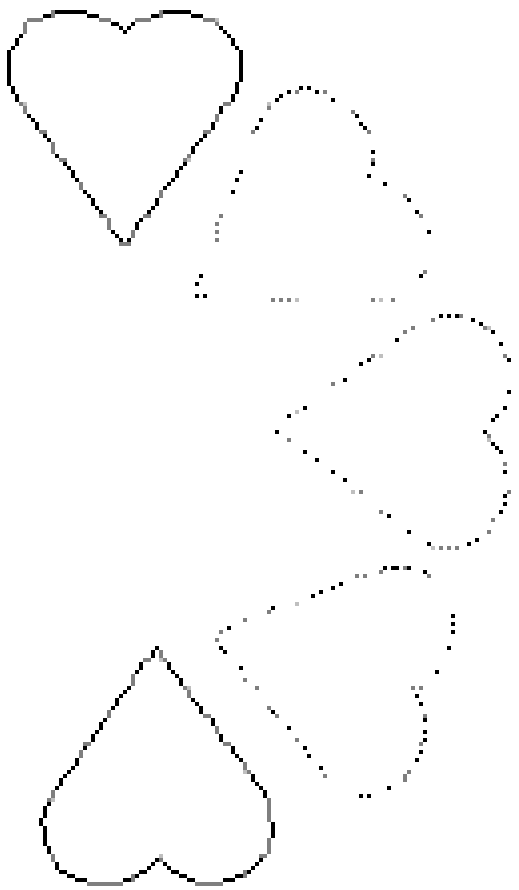


A. 109^0
B. 100^0
C. 71^0
D. 19^0

Angle a and angle b combine to make a straight angle (180^0). Subtract $180^0 - 109^0$ to find angle b.

M2a. Use tools, such as a protractor or angle ruler, and other methods such as paper folding, drawing a diagonal in a square, to measure angles.

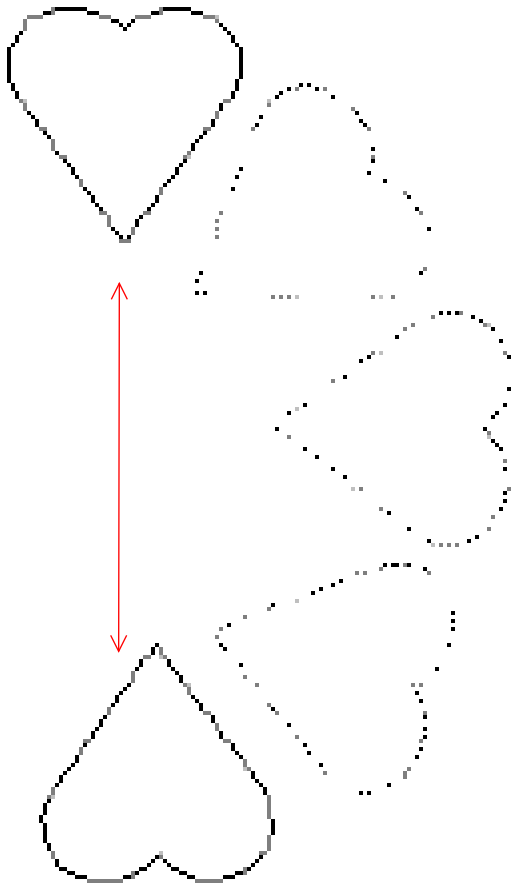
Which statement describes the rotation of this figure?



A. The heart rotated 50°.
B. The heart rotated 90°.
C. The heart rotated 180°.
D. The heart rotated 360°.

M2b. Understand the meaning and measure of a half rotation(180^0) and a full rotation (360^0)

Which statement describes the rotation of this figure?



A. The heart rotated 50°.

B. The heart rotated 90°.

C. The heart rotated 180°. (a half rotation)

D. The heart rotated 360°.

M2b. Understand the meaning and measure of a half rotation(180^0) and a full rotation (360^0)