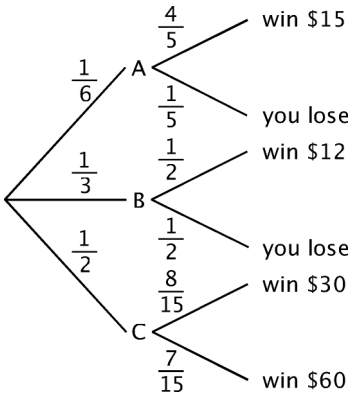
Drag-and-drop

Name: _____ **Date:** _____

1. A prize consists of landing on a region of a spinner, A, B and C, and the toss of a weighted coin that is associated with each of the three regions. The tree diagram and the associated probabilities are as shown.



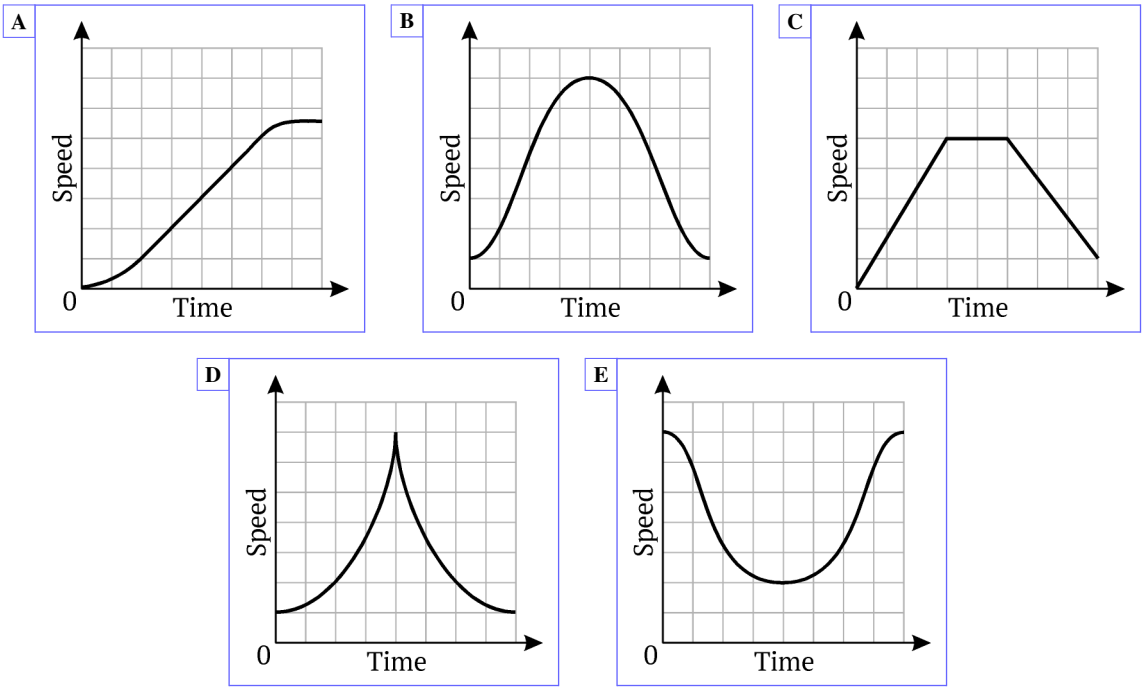
Match each outcome with the correct probability. Not all fractions will be used.

$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{15}$	$\frac{2}{15}$	$\frac{4}{15}$	$\frac{5}{6}$	$\frac{7}{30}$

Probability	Outcome
	winning $12
	winning $15
	winning $30
	winning $60

2. In each of the following scenarios, there is a relationship between speed and time. Match each scenario with the graph that best illustrates the relationship. (Not all graphs will be used, and some graphs may be used more than once.)

Scenario	Graph
Janice has enough speed to coast her bike up and down a steep hill without peddling.	
While skate boarding Dan goes down then up the sides of a half-pipe.	
Trevor is piloting a stunt plane at full power through a vertical loop.	
After a traffic light turns green, Stacy brings her car up to the speed limit of 30 mph.	



3. Classify the following list of real numbers by category. (Some numbers may fit in more than one category.)

-7	$\frac{1}{2}$	-0.6	$1.67342\ldots$	$\sqrt{25}$
3^2	$\frac{5}{11}$	12	$\sqrt{3}$	0

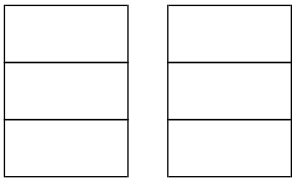
Whole	Integer	Rational	Irrational

4. For a relay game, six students were divided into two teams. The two teams were told to line up next to each other.

   The students names were Tanya, Jake, Mi, Leonard, Zack, and Juanita. Based on the following clues, determine the teams and the students' positions in line.

   - Juanita turned around and asked Mi to stand back a little.
   - Leonard tapped Tanya on the shoulder and said "run fast".
   - Jake turned to his right and shook hands with Tanya.
   - Zack was not first in line.

   To show the teams and positions, drag the names into the boxes below. (The top box is first in line.)



Tanya | Jake | Mi

Leonard | Zack | Juanita

5. Look at the list below. For each, determine if the events described are dependent or independent. Place the letter in the appropriate column of the table.

A A cell phone owner uses more data than her plan allows, then she receives a larger-than-average cell phone bill

B A wrestler wins an Olympic gold medal, then receives a great amount of publicity.

C A father picks up a toy, then he picks up a newspaper.

D A championship gymnast waves to the crowd, then puts on his sweatshirt.

E A student practices Rachmaninov's Piano Concerto No. 3 for several weeks, then performs the piece almost flawlessly at a recital.

F A girl brushes her teeth, then brushes her hair.

Dependent	**Independent**

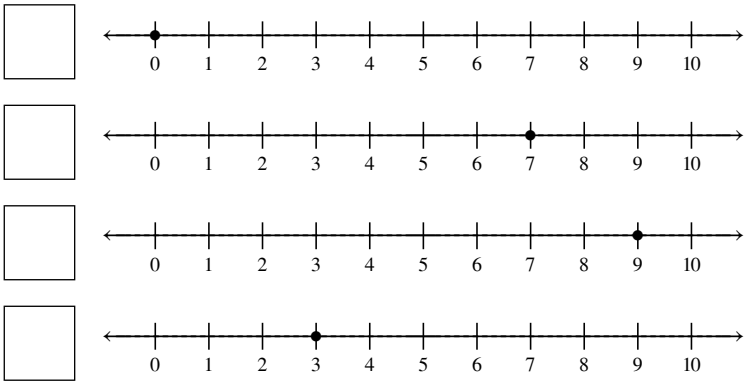
6. Match each clue with the correct number line.

A My number is a whole number less than 10. If you add 3 to my number, then you get 10.

B My number is a whole number between 0 and 10. If you subtract 2 from my number, then you get 1.

C My number is a whole number less than 10. If you add 5 to my number, then you get 5.

D My number is a whole number between 0 and 10. If you subtract 3 from my number, then you get 6.



7. Jeremy wrote five different numbers.

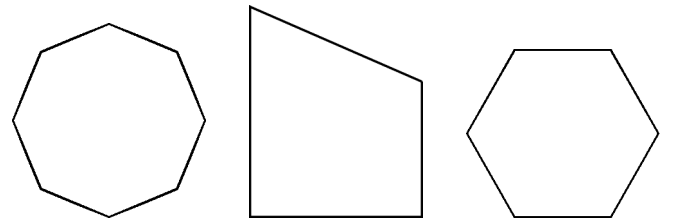
Use your knowledge of place value to put each number in the appropriate box.

10,263 | 36,501 | 77,092 | 90,263 | 16,450

0 ones	0 tens	0 hundreds	0 thousands

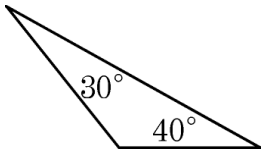
8. Look at the three shapes. Move the correct term under each shape.

pentagon	hexagon
rectangle	triangle
quadrilateral	parallelogram
octagon	rhombus

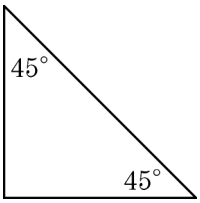


9. Classify the triangles. Place each triangle in the correct box.

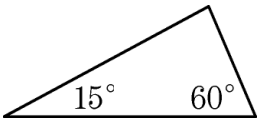
A



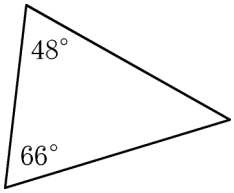
B



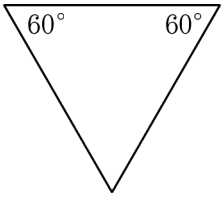
C



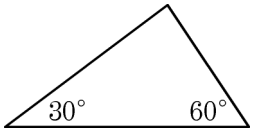
D



E

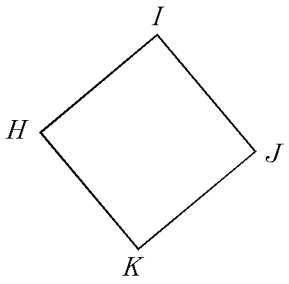


F



Obtuse	Right	Acute

10. The figure *HIJK* is a square. Determine if each pair of line segments is perpendicular or parallel. Drag each choice into the correct box.



$\overline{HI}$ and $\overline{IJ}$	$\overline{HK}$ and $\overline{JI}$	$\overline{HI}$ and $\overline{HK}$	$\overline{KJ}$ and $\overline{IJ}$	$\overline{HI}$ and $\overline{JK}$

Perpendicular	Parallel

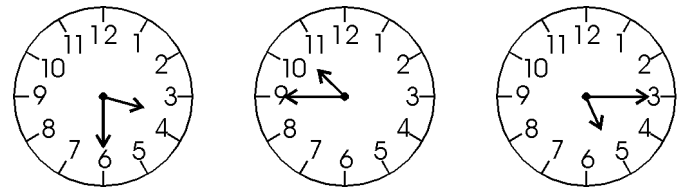
11. The table displays four fractions. In the box below each fraction, place one equivalent fraction.

$\frac{1}{2}$	$\frac{2}{3}$	$\frac{6}{8}$	$\frac{1}{4}$

$\frac{3}{4}$	$\frac{4}{8}$	$\frac{6}{9}$	$\frac{2}{8}$

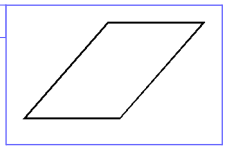
12. In the box under each clock, move the correct time.

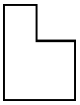
4:15	3:30	11:15	10:45	5:15	9:45	4:30	4:45

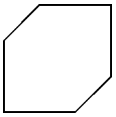


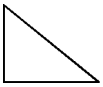
13. Determine the number of lines of symmetry, if any, in each figure.

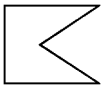
Place each figure in the correct box.

A 

B 

C 

D 

E 

F 

Lines of Symmetry		
None	**One**	**More than one**

14. Determine the factors of each number displayed in the table.

Use the choices to complete the table. Choices may be used more than once or not at all.

0 1 2 3 4 5 6 7 8 9 10 12

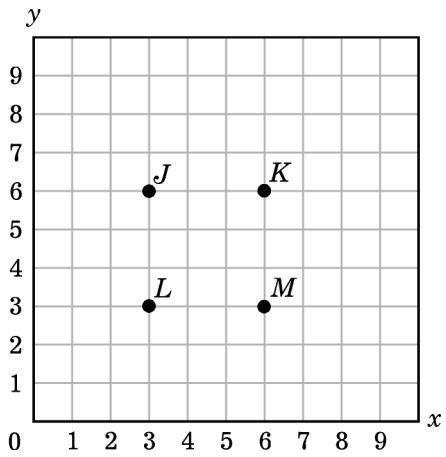
Number	Factors
3	
4	
7	
9	
10	
12	

15. In the box next to each beverage, drag an equivalent measurement.

1 pint	3 pints	5 pints	8 pints	1 quart	2 quarts

	16 oz coconut water
	32 oz berry smoothie
	48 oz apple juice
	128 oz lemonade

16. Look at the graph.

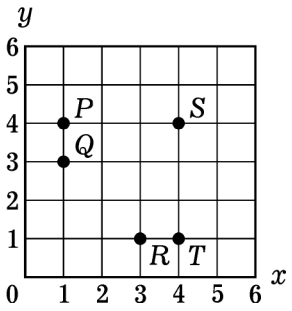


In the table below, drag the correct ordered pair next to each point.

(6, 3)	(3, 6)	(6, 6)	(3, 3)

Ordered Pair	Point
	M
	L
	K
	J

17. Five points are shown on the grid. In the table, match each point with the ordered pair that describes its location.

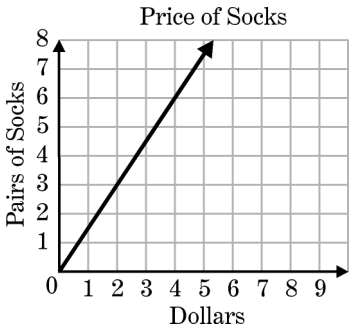


R *T* *Q* *P* *S*

Point	Ordered Pair
	(1, 3)
	(4, 4)
	(1, 4)
	(3, 1)
	(4, 1)

Drag-and-drop

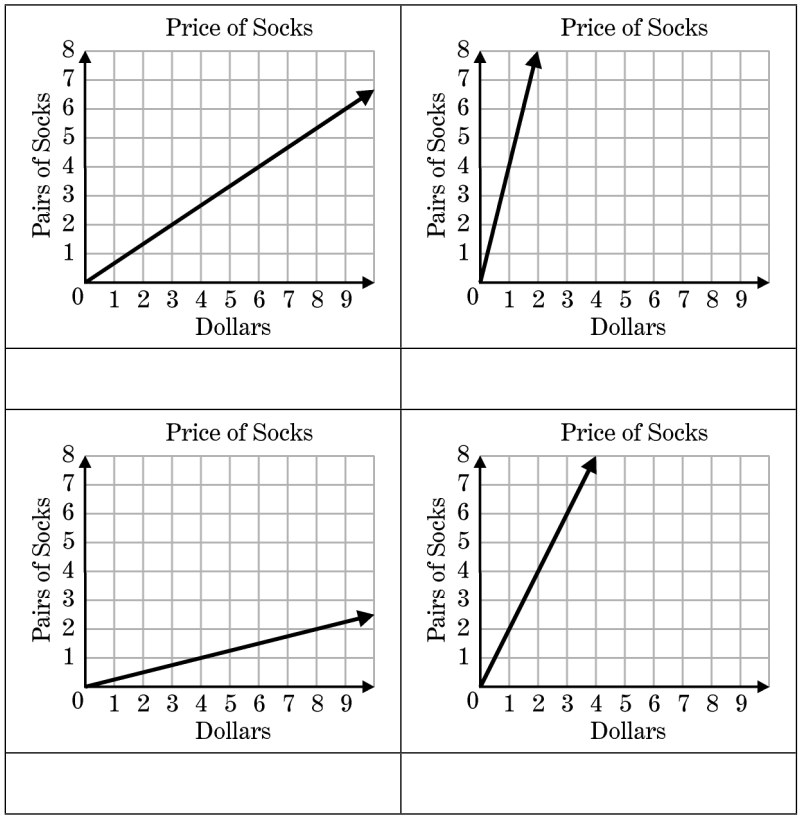
18.



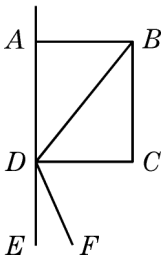
The graph above represents the price of socks which are advertised as "3 pairs for \$2.00". The equation is $S = \frac{3}{2}D$, where S is the number of pairs that someone gets for D dollars.

Below are more graphs and advertised prices. Match them by moving the correct advertised price to the box underneath each graph. (Not all of the advertised prices will be used.)

2 pairs for \$3.00	**2 pairs for \$4.00**	**2 pairs for \$8.00**	**4 pairs for \$2.00**	**8 pairs for \$2.00**



19. Line AE contains one side of rectangle $ABCD$, as shown in the figure.



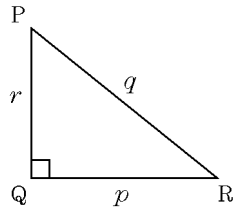
Consider the following angle pairs.

$\angle ABD, \angle CBD$	$\angle ADB, \angle BDC$	$\angle ADB, \angle BDE$
$\angle ADC, \angle CDE$	$\angle ADF, \angle EDF$	$\angle CDF, \angle EDF$

Determine whether each angle pair is complementary or supplementary. Move each angle pair into the correct box.

Complementary	Supplementary

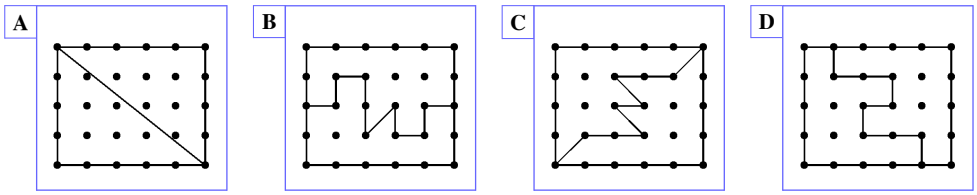
20. Given the diagram, fill in each row of the table with the length of the third side.



$\sqrt{6}$	$3\sqrt{2}$	$\sqrt{30}$	$5\sqrt{6}$	13	17	34	40	46

p	q	r
12		5
30		16
$\sqrt{6}$	$\sqrt{12}$	
$3\sqrt{2}$		$2\sqrt{3}$

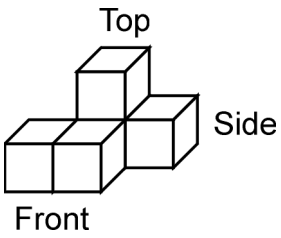
21. The figures below show rectangles divided into two parts.



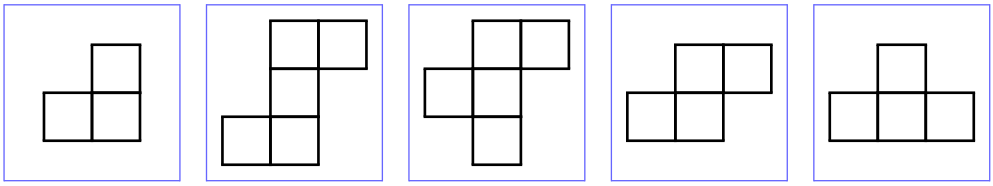
In which of the figures are the two parts congruent? Drag each figure into the correct box.

Congruent	Not Congruent

22. The three-dimensional object below is built from 5 small cubes.



Move the figures into the correct box to match the view of the object.



Front view	Side view	Top view

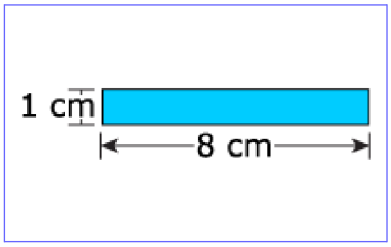
23. Complete the table by putting the correct values in the boxes. Values may be used more than once or not at all.

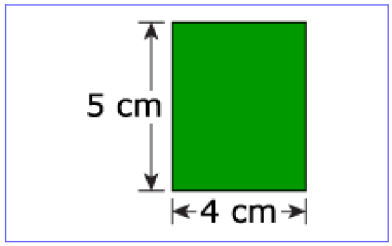
-1	1	$-\sqrt{3}$	$\sqrt{3}$	$-\frac{1}{2}$	$\frac{1}{2}$
$-\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{3}$	$\frac{\sqrt{3}}{3}$

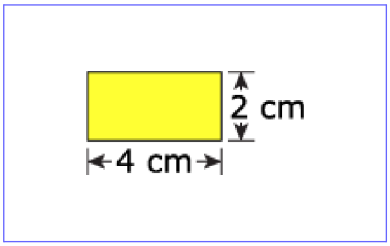
θ	$\sin\theta$	$\cos\theta$	$\tan\theta$
$-\frac{\pi}{6}$			
$\frac{\pi}{4}$			
$\frac{2\pi}{3}$			

24. Three rectangles are shown. Which two rectangles go in each box?

Drag and drop two of the rectangles into each box. The rectangles can be used more than once.







Same Area and Different Perimeters	Same Perimeter and Different Areas	Different Areas and Different Perimeters

25. Build an equation to model the statement shown.

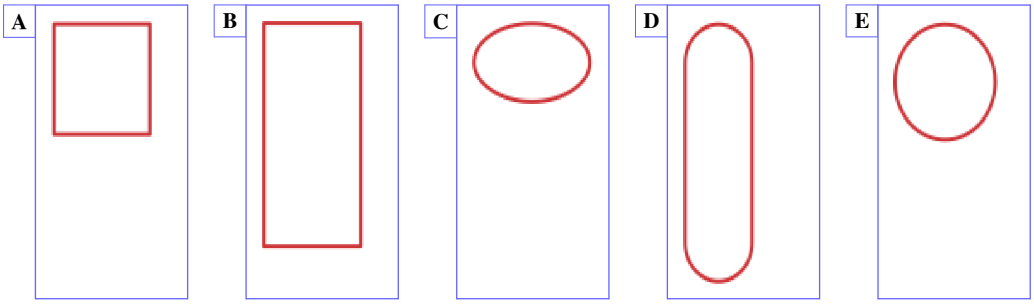
40 pounds is 5 times as heavy as 8 pounds.

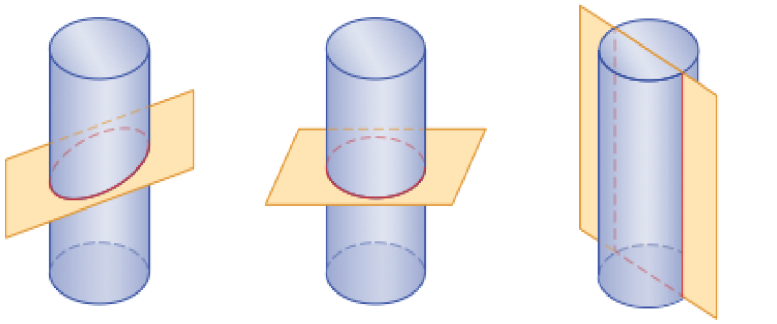
Drag and drop each correct number and each correct symbol into the appropriate box.

$+$	$-$	$\times$	$\div$	$=$	40	5	8	13

26. The right cylinders shown are each intersected by a geometric plane. The height of each cylinder is twice its diameter. Which two-dimensional figures will result from slicing a right cylinder by a geometric plane?

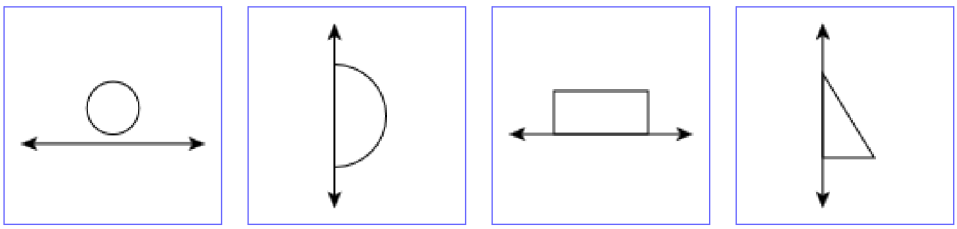
Drag and drop the appropriate figure into each box.

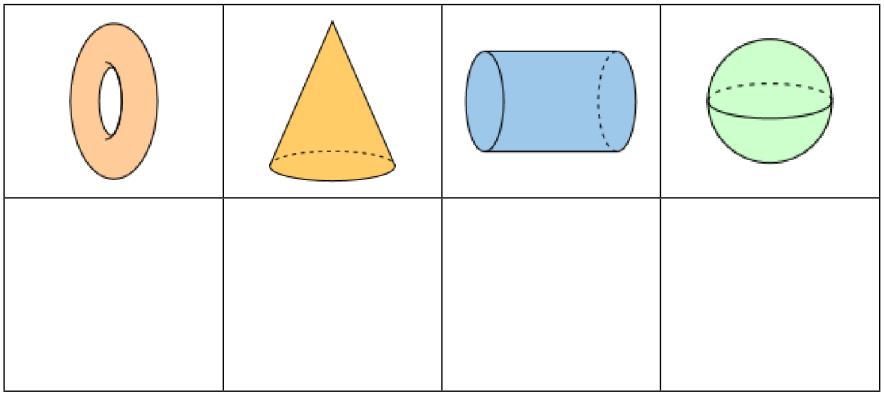




27. Each of the two-dimensional figures shown will be rotated 360° about the respective line, creating a three-dimensional figure.

Match the two-dimensional figures with the three-dimensional figures to identify the correct representation of the resulting three-dimensional figure.





28. Drag each number into the correct answer space.

Factors of 27	Factors of 35

3 5 7 9 27 35

29. An artist is using red, blue, and green tiles to create a mosaic.

- The ratio of red tiles to total tiles should be 2 : 5.
- For every 2 blue tiles, there should be 1 green tile.

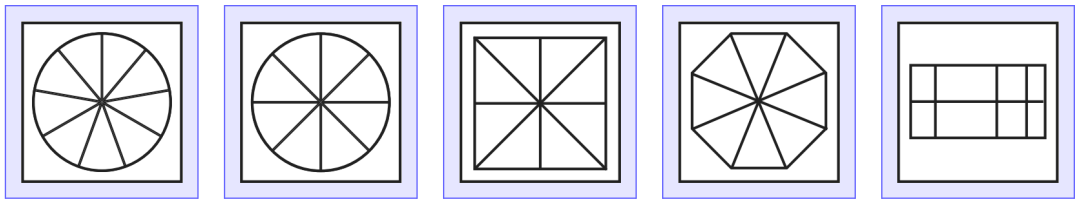
Drag tiles into the space to create a set of tiles the artist could use.

R B G

Set of Tiles

30. Which shape or shapes have parts that are $\frac{1}{8}$ the area of their whole shape?

Place the correct shape or shapes into the box.



31. A person runs laps around a track. The relationship between the number of laps, x, and the total distance run in miles, y, can be represented by the equation $y = 0.25x$.

Complete the table to represent this relationship.

Move the correct answer to each box in the table. Not all answers will be used.

1.25 | 1.75 | 3.5 | 4.25 | 6.75 | 7.25 | 16.75 | 17.25

Track

Number of Laps, x	**Total Distance, y (miles)**
2	0.5
7	
8	2
17	

32. The table shows the amounts the water levels increased in feet for five Texas lakes during one week.

Texas Lakes

Name of Lake	**Increase in Water Level (feet)**
Arlington	2.2
Athens	$1\frac{1}{4}$
Belton	5.2
Bonham	$2\frac{1}{2}$
Cedar Creek	$\frac{3}{4}$

Order the names of the lakes by water level increase from greatest to least.

Move the correct answer to each box.

Arlington | Athens | Belton | Cedar Creek | Bonham

Greatest **Least**

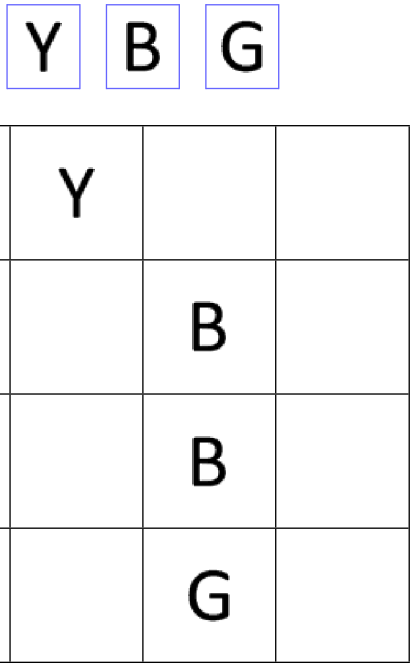
Drag-and-drop

33. A game board is shown.

Some of the squares on the board are labeled.

Drag letters into the rest of the squares so that

- $\frac{1}{2}$ of all the squares on the board are labeled Y,
- $\frac{1}{4}$ of all the squares on the board are labeled B, and
- $\frac{1}{4}$ of all the squares on the board are labeled G.



Drag-and-drop