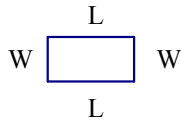


A. AREA AND VOLUME

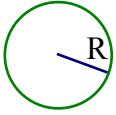
FORMULAS



Area of a rectangle=length x width
Perimeter of a rectangle = distance around

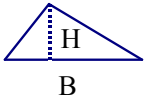
$$A = LW$$

$$P = 2L + 2W$$



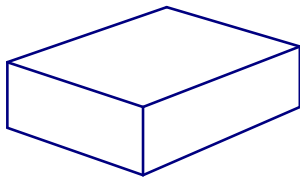
Area of a circle= π x radius x radius

$$A = \pi R^2$$



Area of a triangle= $\frac{\text{base x height}}{2}$

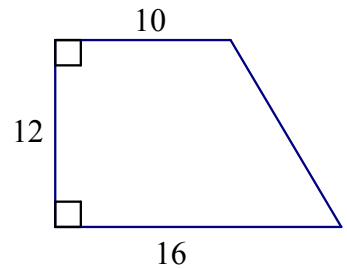
$$A = \frac{BH}{2}$$



Volume of a box $V=LWH$
length x width x height

1. Find the total area of this figure.

Total area =



2. A square park has a circular fountain in the center of it.
The park is 100 feet on each side. The fountain has a radius of 25 feet.
How much area is left over for grass?

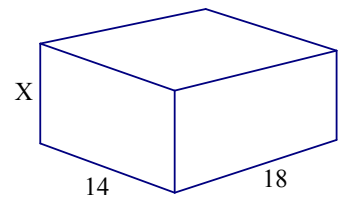
Area of square =

Area of circle =

Area for grass =

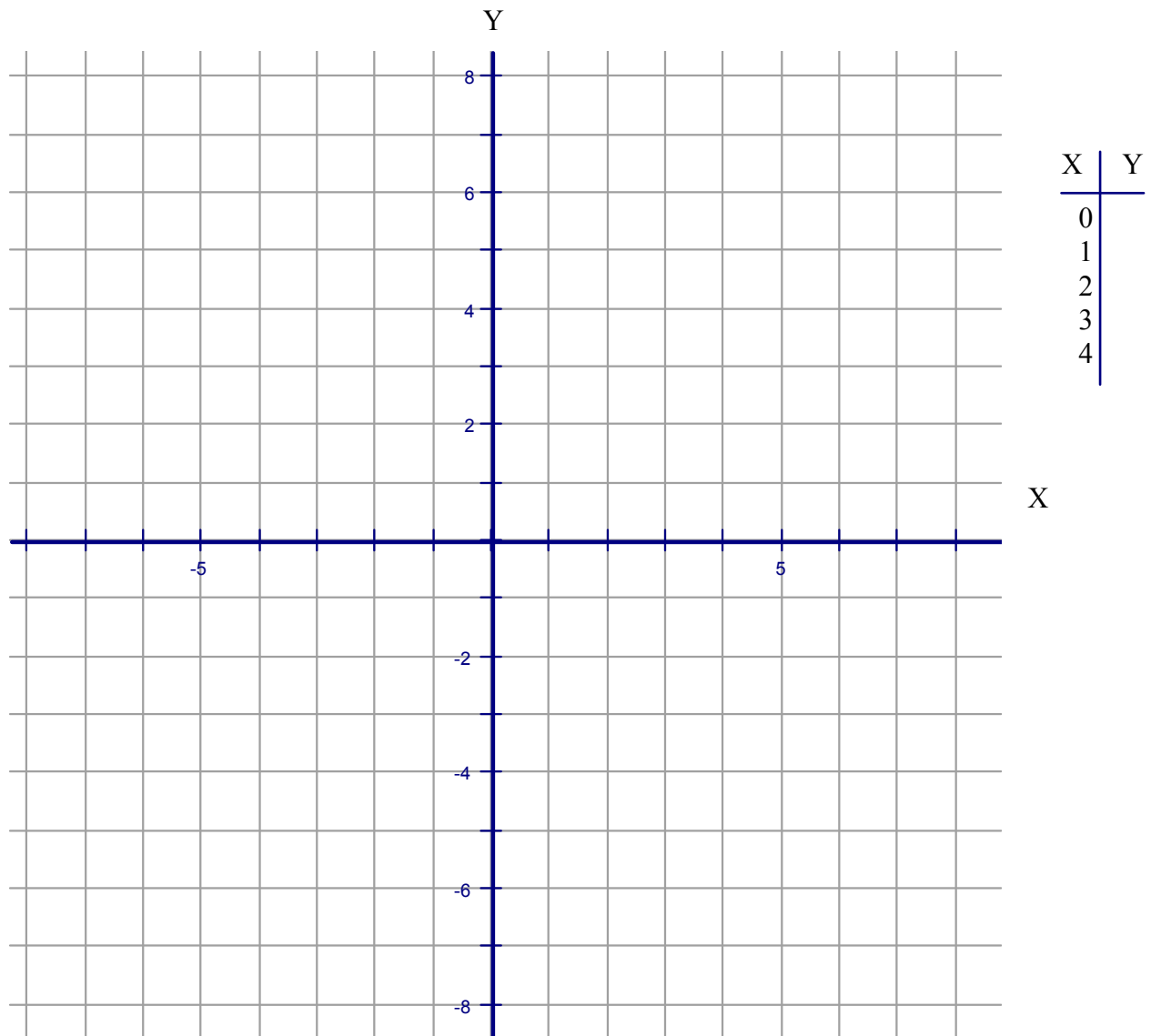
3. A box has a bottom with dimensions of length 14 inches and 18 inches. What height is needed so that the total volume will be 1638 square inches?

Height =



B. GRAPHS OF EQUATIONS

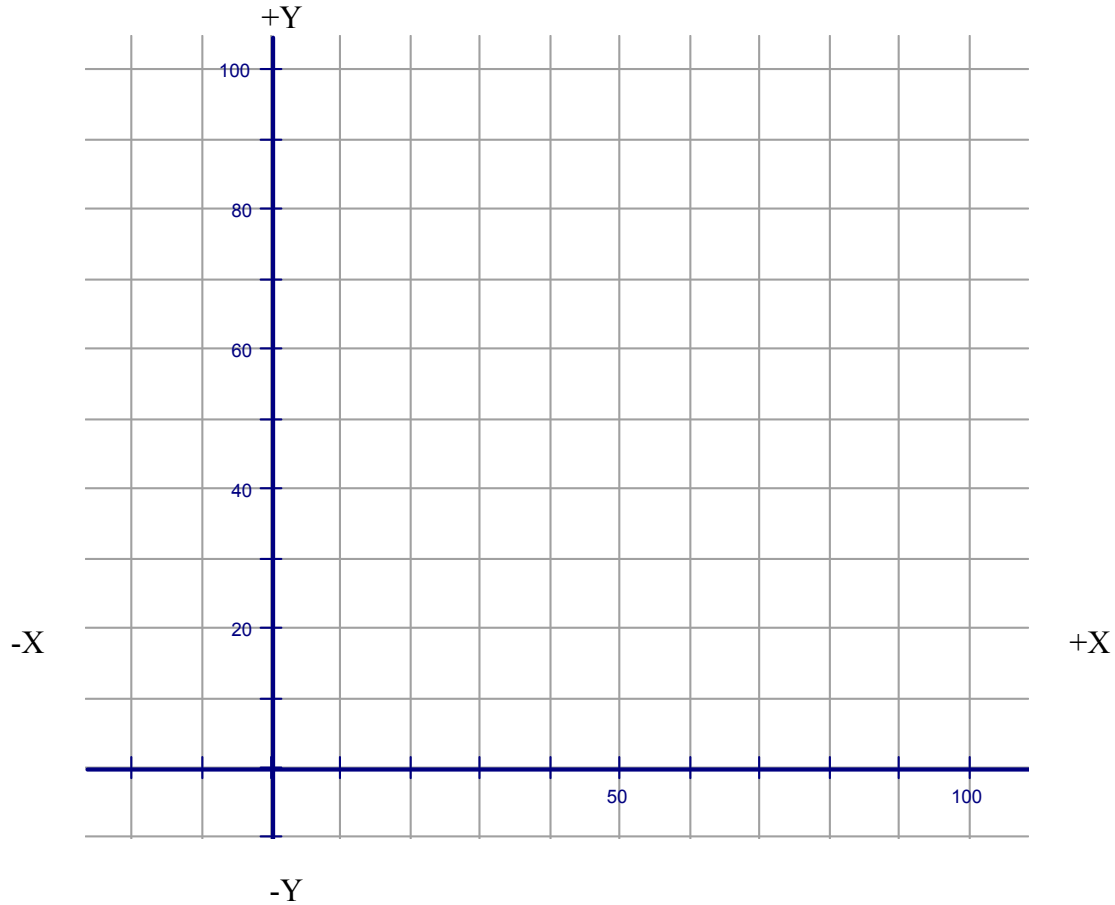
1. Graph the line with the equation $Y = 2X - 5$. Fill out the table of values first and then plot the points and connect them.



2. a. Harry and Sally have a total of \$90 between them. List some possibilities for how much Harry has and how much Sally has.

Harry	Sally

b. Graph your points by making pairs of numbers. (Harry's money, Sally's money) will be (x, y).



c. Graph the point where Harry has all the money. Graph the point where Sally has all the money.

d. Connect the points. Is this a straight line?

e. If X stands for Harry's money and Y stands for Sally's money write an equation for this graph.

C. SOLVING EQUATIONS

1. $6x = 198$

x =

2. $\frac{x}{4} = 71$

x =

3. $3x + 3 = 186$

x =

4. $\frac{2x}{12} = 78$

x =

5. $8x - x - 3x = 68$

x =

6. $100 + 2(x + 4) = 188$

x =

7. $\frac{x}{24} = \frac{3}{8}$

x =

D. COUNTING AND PROBABILITY

Basic Rule of Probability	$Probability = \frac{\text{Number of ways you want}}{\text{Total number of ways}}$
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1. a. How many 4-letter “words” can be made using only the seven letters B, O, A, T, E, R, S if it is OK TO REPEAT LETTERS? Show your math by using the boxes to write the possibilities for each position.

b. Now suppose it is NOT OK TO REPEAT LETTERS. Now how many possibilities are there?

2. In how many different ways can 6 people line up?

3. At the restaurant buffet you have 4 choices of salad dressing, 6 choices of main dishes, 3 choices of vegetables and 7 kinds of desserts. How many different meals could you eat, by choosing one of everything?

4. A bag of marbles contains 3 red marbles, 2 blue marbles and 5 black marbles, for a total of 10 marbles. If you pull out one marble randomly from the bag what is the probability that it is blue?

E. STATISTICS

Mean: The average.
Median: The middle value
Mode: The most common value.

1. Here is a table showing how many pounds babies weighed who were born in Boston last week.

Weight in pounds	Number of babies
6	3
7	6
8	16
9	17
10	5
11	2
12	1

Total 50

Median weight =

Mode weight =

Mean weight =

F. MISCELLANEOUS

D=ST Distance = Speed x Time If you know two out of three of these you can find the third.
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1. A plane flies for 18 hours and travels 6750 miles. How fast did it fly?

2. A person walks 3.5 miles per hour and goes 20 miles. How much time was spent walking?

3. Fill in the blank values.

x=Position	1	2	3	4	5	6	7	8	9	10
y=Value	17	21	25	29	33	37	41			

What is the number being added?

Write the equation.

What is Y when X = 95?