

Using a calculator find A^{-1}

$$A = \begin{bmatrix} 7 & 1 & 5 \\ 3 & 1 & 0 \\ 2 & 6 & 1 \end{bmatrix}$$

Solve with
matrix

Set up & solve the following
using matrices.

$$y = 3x - 2$$

$$1 = 2y - 5x$$

Solve with
matrix

Wonderlust T's, founded by Sierra,
have a cost equation of $C = 3t + 60$
If she charges \$18 per t-shirt
how many shirts will it take for the company
to break even?

Solve with
Algebra

$$A = \begin{bmatrix} 2 & 3 & 4 & 5 \\ 12 & -1 & 6 & -7 \\ 1 & 4 & -9 & 0 \\ 6 & 2 & 5 & -3 \end{bmatrix}$$

Solve with
matrix

Find A_{23} , label \bigcirc

$$\begin{bmatrix} 4 & 2 & -4 \\ -1 & -1 & 1 \\ 2 & -8 & 1 \end{bmatrix}$$

15 t-shirts

(5, 13)

$$A_{23} = 6$$

$$O = P_{34}$$

Create a hierarchy solely of the following terms:

Quadrilateral Square
Kite isosceles trapezoid
Rhombus parallelogram

Classify

Use graph to solve

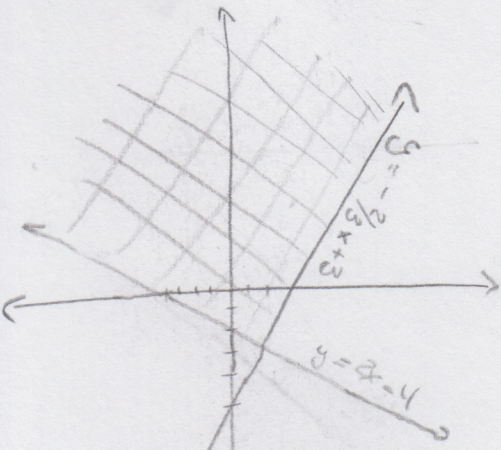
$$y = x + 4$$
$$y = 2x + 1$$

Solve with Graph/Table

Solve the following system of equations using substitution or elimination

$$2x - 4y = 6$$
$$x + 2y = 3$$

Solve with Algebra

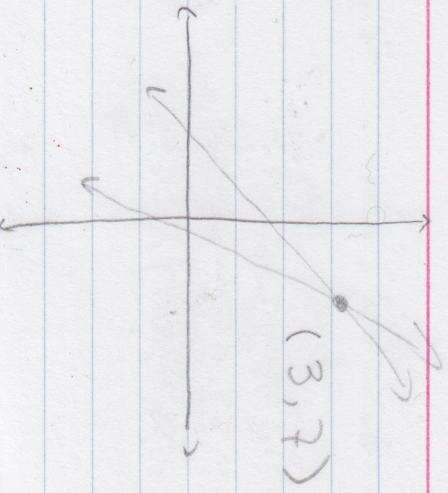


Create a system of inequalities for which the double shaded region is a solution

Solve with Graph/Table

Quadrilaterals
Parallelogram
rhombus
square
Kite
isosceles trapezoid

(3,0)



Translation

Hamza is at the coordinates
(-17, 22) and goes to
Hamzah's house at (21, -3)

Express this movement in translation form.

Solve with
Matrices

$$\begin{aligned}7x + 2y - 3z - 3m &= -15 \\ -x + 3y + 4z + 2m &= 26 \\ 2x - 5y - 2z + 5m &= 48 \\ x + 3y + 8z + 9m &= 110\end{aligned}$$

500 pts

Translation

List the matrices that will rotate
a figure 90° , 180° , 270° & 360°

Solve the system of equations

$$\begin{aligned}2y &= 4x + 2 \\ y &= -5x - 6\end{aligned}$$

$$(x, y) \rightarrow (x+38, y-25)$$

$$\begin{cases} X = 4 & Z = 5 \\ Y = -2 & m = 8 \end{cases}$$

$$\begin{array}{l} 90^\circ \begin{bmatrix} 0 & -1 \\ 1 & 0 \end{bmatrix} \\ 180^\circ \begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix} \end{array} \quad \begin{array}{l} 270^\circ \begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix} \\ 360^\circ \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \end{array}$$

$$(-1, -1)$$

Plot & connect these points then
name, most specifically, the shape.

$(-3, 2)$ $(-1, 6)$ $(1, -2)$ $(4, 2)$

Rotate the coordinates 270°

$(3, 2)$ $(3, 4)$
 $(1, 3)$ $(4, 3)$

Transform
Quadrilateral

What is the shape created
by these coordinates

Create a matrix that will dilate
a figure by $1/2$ then use it on
the coordinates:

$(2, 3)$ $(1, 0)$
 $(-2, 7)$

Transform

Flip $\begin{bmatrix} -3 & 2 & 1 \\ 6 & -1 & 7 \end{bmatrix}$

over the y-axis.

Transform

Kite, Quadrilateral

$(9, 2\frac{1}{2})$ $(\frac{9}{2}, 0)$
 $(-9, 6\frac{3}{2})$

$$\begin{bmatrix} 9\frac{1}{2} & 0 \\ 0 & 9\frac{1}{2} \end{bmatrix}$$

Kite

$(-2, 3)$ $(-3, 1)$

$(-4, 3)$ $(-3, 4)$

$$\begin{bmatrix} 3 & -2 & -1 \\ 6 & -1 & 7 \end{bmatrix}$$

Prove

Given the pts

$(-3, 2)$ $(-1, 6)$ $(-1, -2)$ $(9, 2)$

Find the area of created by these pts.

Prove
Saves

What are the distance, midpoint & slope equations?

Solve with algebra

Use substitution to solve

$$y = 3x + 4$$

$$y - x = 6$$

Solve with algebra

Given $y = -x - 1$ and $y = 3x + 4$
use a table or graph to find the solution

$$\frac{8 \cdot 12}{2} = 48$$

(1, 7)

$$\text{Distance: } \sqrt{(x_1 - y_1)^2 + (x_2 - y_2)^2}$$

(-2, 1)

$$\text{Mid pt: } \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

$$\text{Slope: } \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

What would I need to prove
for something to be an isosceles
trapezoid?

A rhombus _____ a rectangle

IF always stronger state what
IFC sometimes give an example of when it is isn't

$$A = \begin{bmatrix} 1 & 2 \\ 2 & 3 \end{bmatrix} \quad B = \begin{bmatrix} 2 & 1 \\ 3 & 7 \\ 5 & 8 \end{bmatrix} \quad C = \begin{bmatrix} 1 & 3 & 5 \\ 7 & 2 & 7 \\ 6 & 5 & 2 \end{bmatrix}$$

Solve with
matrices

$$D = \begin{bmatrix} 1 \\ 3 \\ 7 \\ 12 \end{bmatrix} \quad E = [134] \quad F = \begin{bmatrix} 1 & 9 & 7 \\ 2 & 3 & 10 \\ 7 & 4 & 2 \\ 10 & 6 & 5 \end{bmatrix}$$

Find all combinations of pairings that
can multiply.

When are lines parallel? perpendicular?

Prove
each

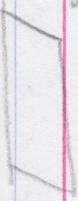
Give an example of each.

base sides //

other sides \approx

ptg
b, c

Sometimes



BA

CB

EB

FB

FC

EC

DE

Parallel: same slope

$$y = ax + b, y = ax + c$$

perpendicular: neg recip slope

$$y = \frac{a}{b}x$$

$$y = -\frac{b}{a}x$$

Use a table to solve the system:

$$y = 7x - 2$$

$$y = -2x - 11$$

Solve with graph/table

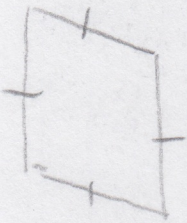
200pts

$$D = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix} \quad E = \begin{bmatrix} 4 & -4 \\ 8 & 6 \\ 2 & 0 \end{bmatrix}$$

Solve with matrices

Find $4D - \frac{1}{2}E$

Describe the following using All possible names:



Describe

Graph the system of linear inequalities and find the solution region

Solve with Grapher Table

$$y > 2 - 3x$$

$$y \leq x - 3$$

$(-1, -9)$

$$\begin{bmatrix} 6 & 14 \\ 16 & -11 \\ 3 & 36 \end{bmatrix}$$

RHOMBUS
KITE
PARALLELOGRAM
QUADRILATERAL

