

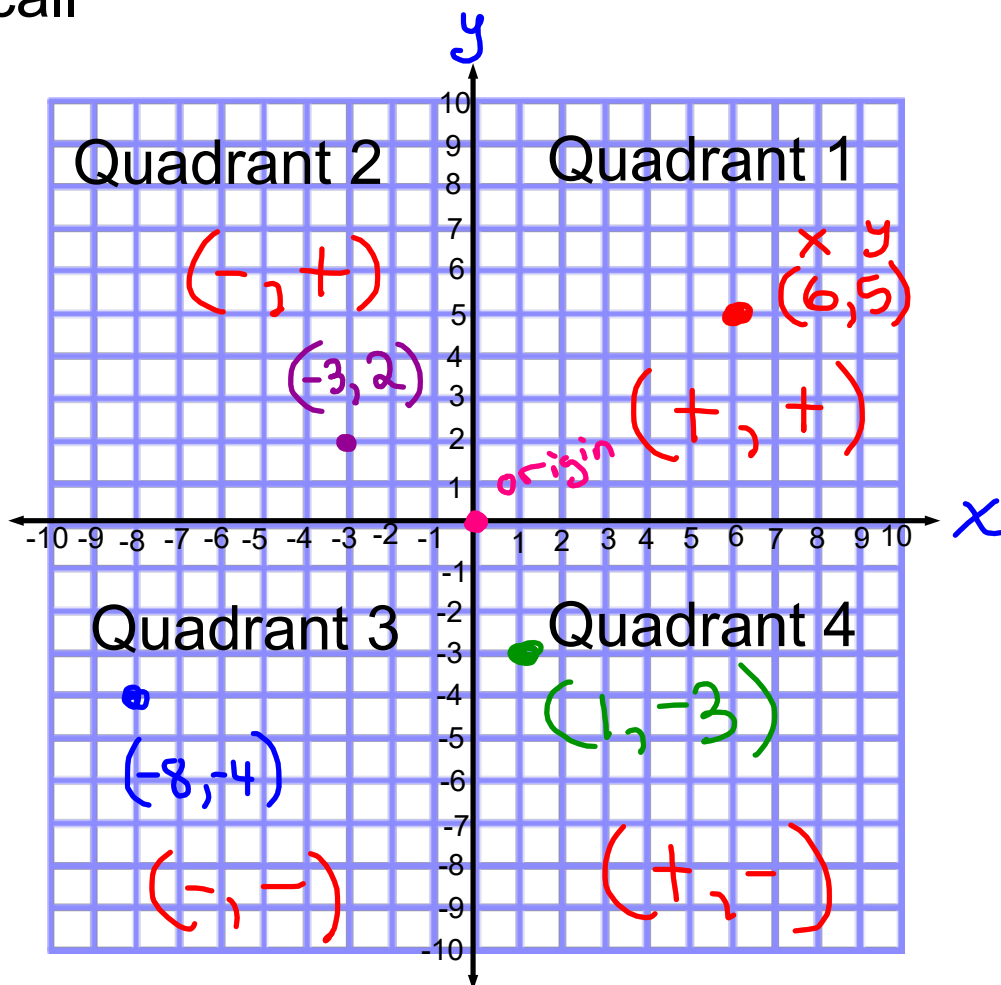
Curriculum Outcomes:

(PR1) Generalize a pattern arising from a problem-solving context using linear equations and verify by substitution.

(PR2) Graph linear relations, analyze the graph and interpolate or extrapolate to solve problems.

Student Friendly: Being able to identify a linear pattern in a t-table.

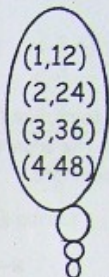
Recall



Graphing Ordered Pairs

The table shows the relationship between a number of CD's and their cost.

Number of CD's	Cost (\$)
1	12
2	24
3	36
4	48

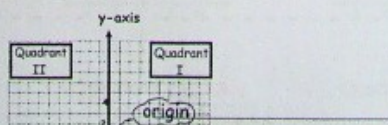


This relationship can be represented by a set of ordered pairs.

The first number of each pair represents the number of CD's, and the second number represents the cost.

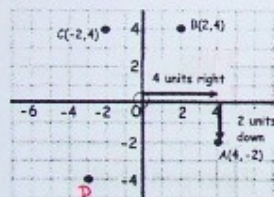
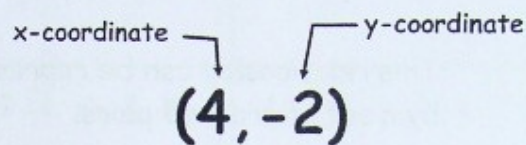
What does (4, 48) mean? 4 CD cost \$48
 What would (36, 3) mean? 36 CD cost \$3.00

Ordered pairs can be shown on a grid formed by 2 perpendicular number lines.



Plotting or Graphing a Point

Ordered pairs, like $(4, -2)$, can be used to name points on the grid. The first number in the ordered pair is called the x-coordinate. The second number is the y-coordinate.

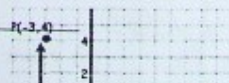


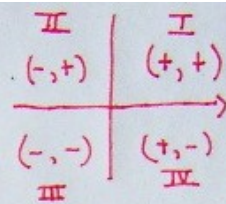
The ordered pair to name point D in the diagram is $(-3, -4)$

Why is $(4, -2)$ different from $(-2, 4)$?

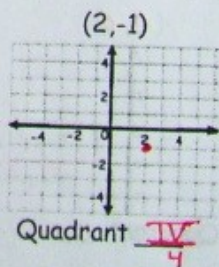
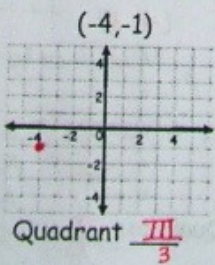
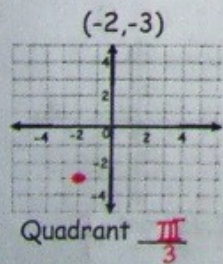
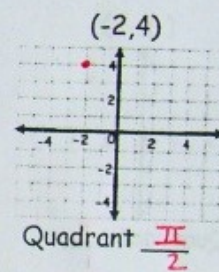
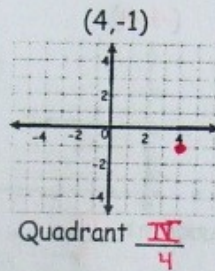
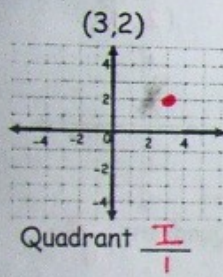
$(4, -2) \Rightarrow$ you go right 4 down 2
 $(-2, 4) \Rightarrow$ you go left 2 up 4

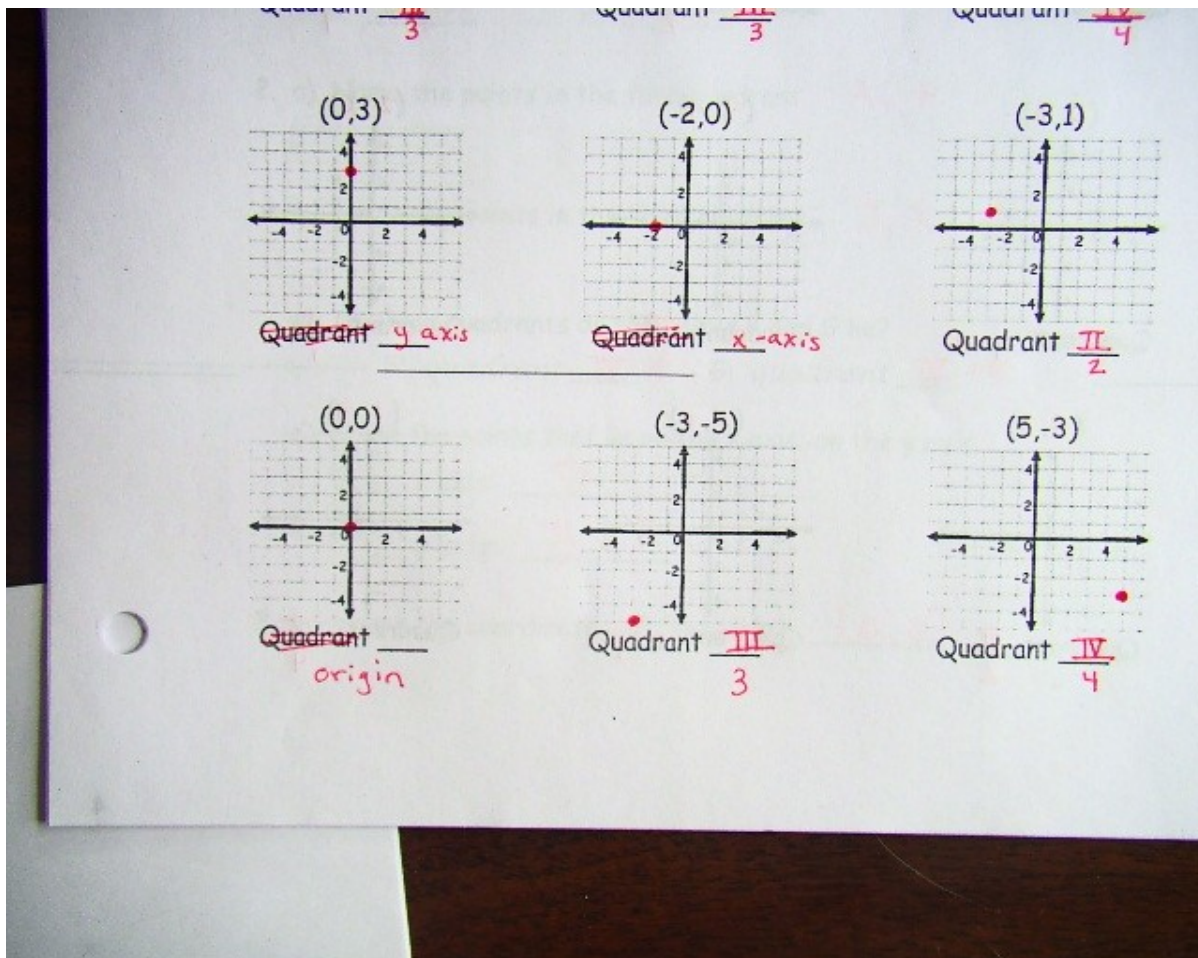
The graph shows how to plot the



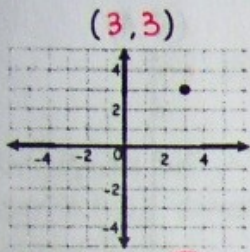


Plot the following points & name the quadrant

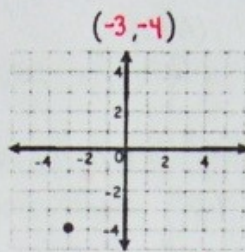




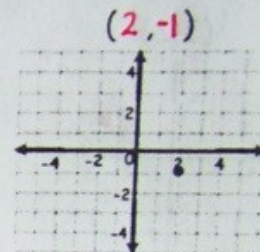
Name the point & quadrant



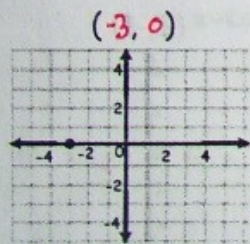
Quadrant I
1



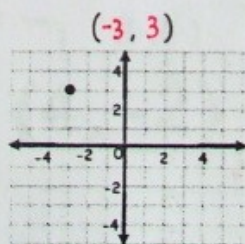
Quadrant III
3



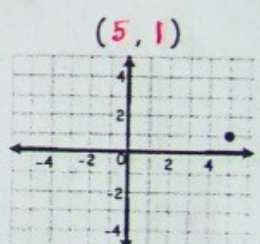
Quadrant IV
4



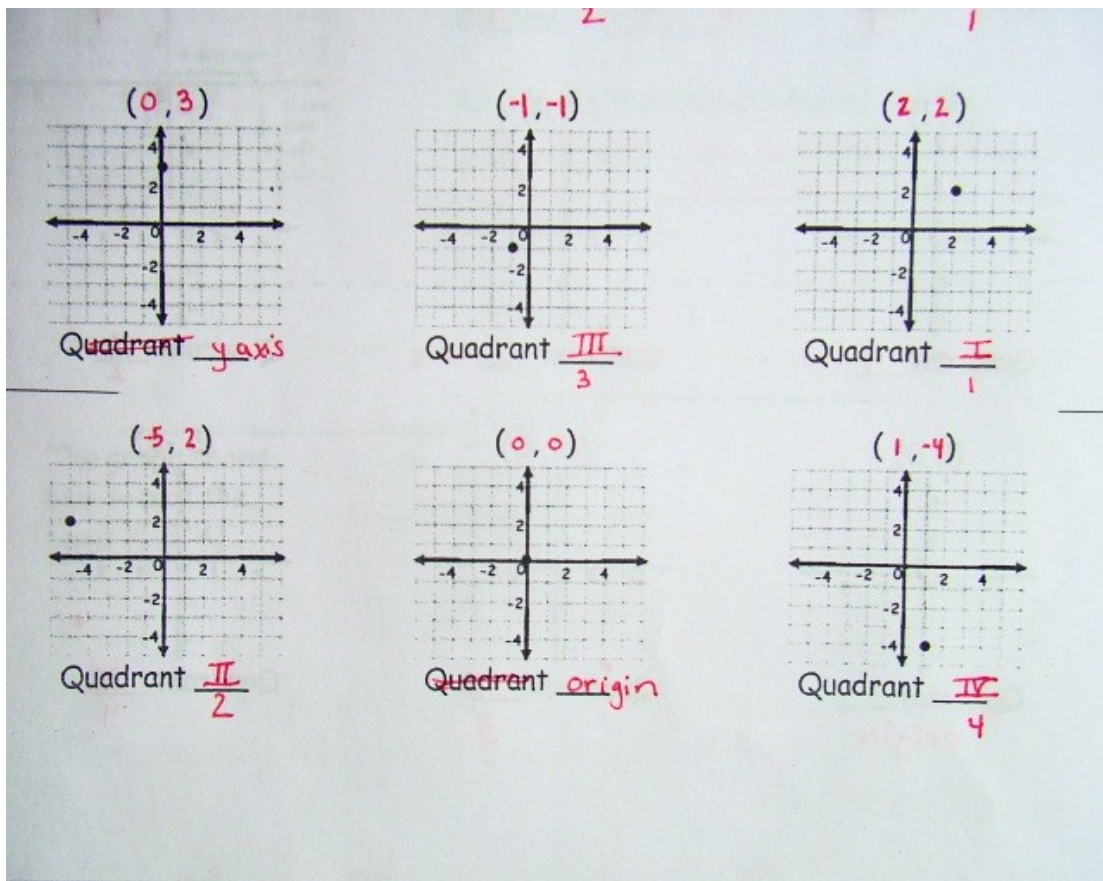
Quadrant X-axis



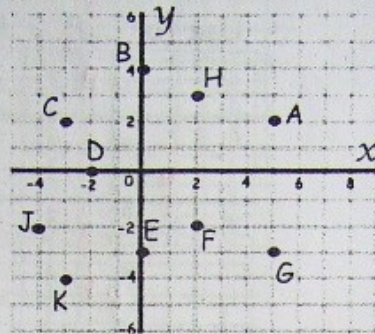
Quadrant II
2



Quadrant I
1



Use the grid
to answer
Questions 1
to 3.



1. State the coordinates of each point.

A. (5, 2)

B. (0, 4)

C. (-3, 2)

D. (-2, 0)

E. (0, -3)

F. (2, -2)

G. (5, -3)

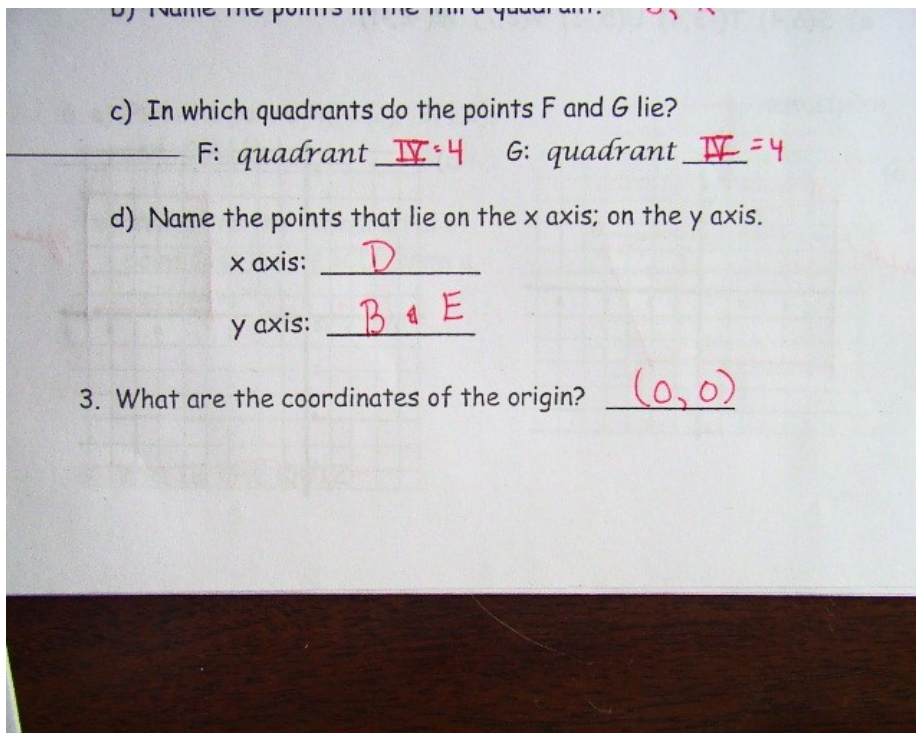
H. (2, 3)

J. (-4, -2)

K. (-3, -4)

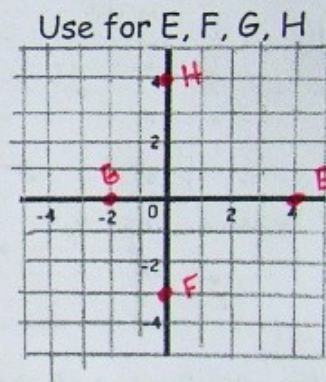
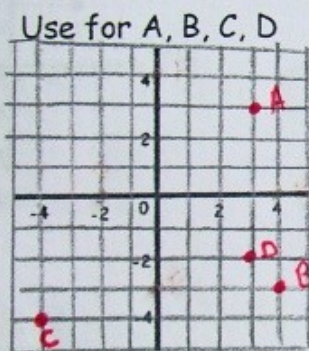
2. a) Name the points in the first quadrant. **A, H**

b) Name the points in the third quadrant. **J, K**



4. Plot each point on a grid.

$A(3,3)$ $B(4,-3)$ $C(-4,-4)$ $D(3,-2)$ $E(4,0)$
 $F(0,-3)$ $G(-2,0)$ $H(0,4)$

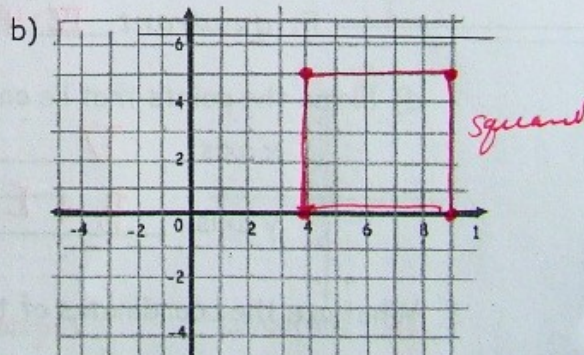
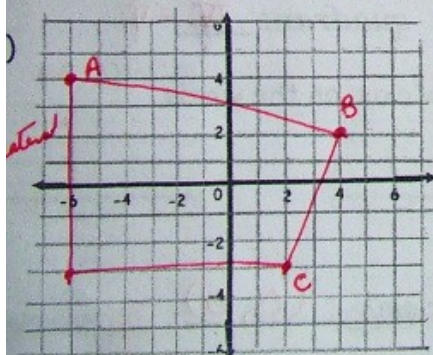


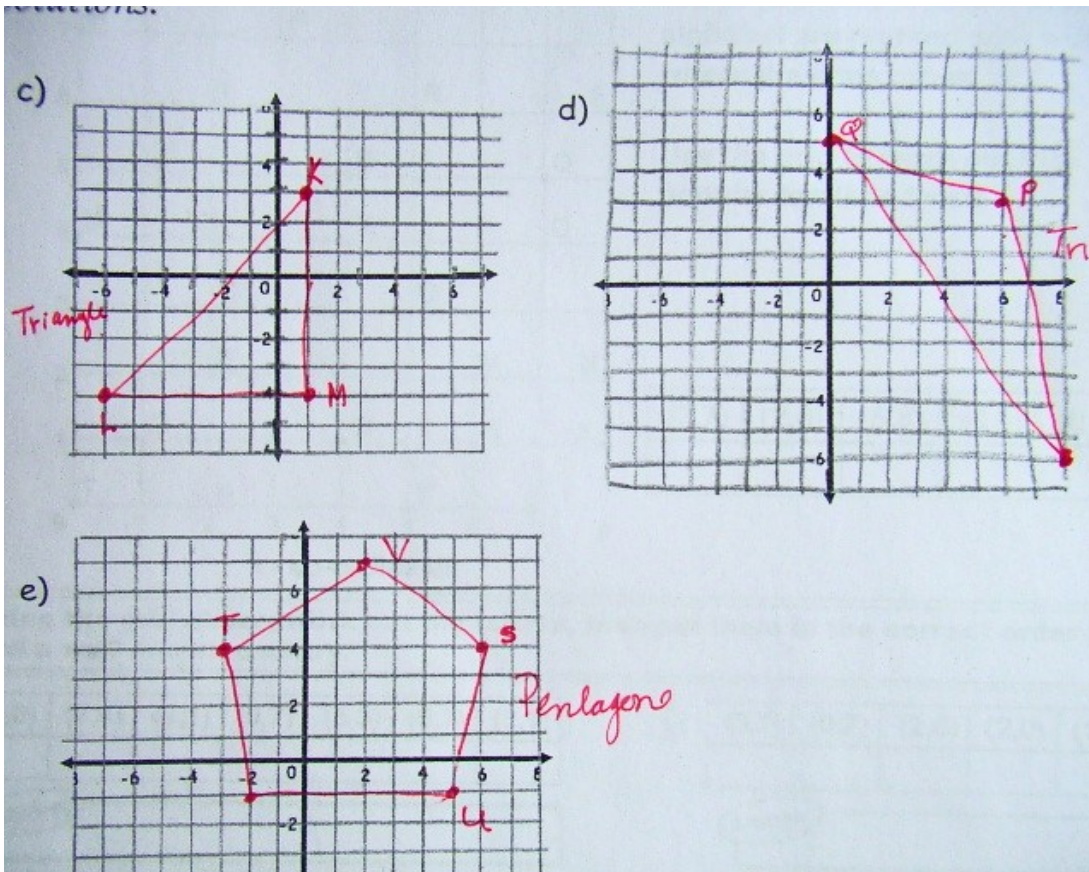
5. Graph each set of points on a separate grid. Join the points in the order given and return to the first point. Name the figure formed in each case.

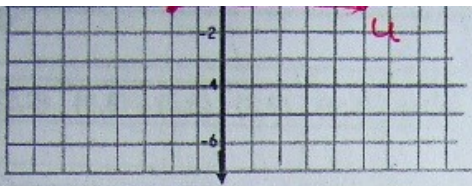
Graph each set of points on a separate grid. Join the points in the order given and return to the first point. Name the figure formed in each case.

- a) A(-6,4) B(4,2) C(2,-3) D(-6,-3)
- b) E(4,5) F(9,5) G(9,0) H(4,0)
- c) K(1,3) L(-6,-4) M(1,-4)
- d) P(6,3) Q(0,-5) R(8,-6)
- e) S(6,4) T(-3,4) U(5,-1) V(2,7) W(-2,-1)

solutions:

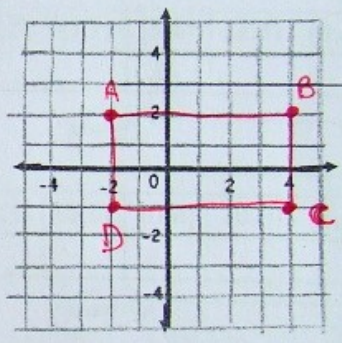






6. a) Plot the points $A(-2,2)$, $B(4,2)$, and $C(4,-1)$.

b) What are the coordinates of point D so that $ABCD$ forms a rectangle?
 $D = (-2, -1)$



~~7. WRITE THE QUIZ~~