

Name _____ Date _____ Section _____

2-19 Coordinating Polygons

Coordinate geometry is the branch of mathematics that combines plotting points and using these points to form geometric figures.

To plot a point, look at the first number of an ordered pair and locate that number on the x-axis (the horizontal line). The second number is plotted on the y-axis (vertical line). If the second number is positive, move up the designated number of units. If it is negative, move down. If it is zero, don't move at all. Mark the point at the place on the graph where the numbers on the x- and y-axis cross.

Twelve sets of numbers follow. Each set will form a separate polygon. For each set, plot the points on your graph paper. Using your ruler, connect them in order from the first point to the last point, then back to the first point. After you have plotted all 12 sets, you should have formed 12 polygons on your graph paper. Select a word at the bottom of this page that best names each polygon and write the name of the polygon inside it.

1. (7, 1) (8, 3) (6, 4) (5, 2)
2. (0, -5) (4, -8) (0, -10) (-3, -7)
3. (-8, 0) (-9, 2) (-11, 2) (-12, 0) (-11, -2) (-9, -2)
4. (4, 7) (4, 9) (6, 11) (8, 11)
5. (3, -1) (3, -3) (8, -1)
6. (1, 6) (1, 10) (-1, 10) (-1, 6)
7. (9, 9) (10, 14) (14, 14) (14, 10) (12, 7)
8. (-3, 9) (-8, 7) (-5, 7)
9. (-2, 4) (1, 1) (1, -1) (-2, 2)
10. (-4, -6) (-4, -7) (-5, -9) (-9, -9) (-10, -7) (-10, -6) (-9, -4) (-5, -4)
11. (-2, 0) (0, -4) (-4, -4)
12. (-6, 2) (-9, 3) (-6, 4) (-3, 3)

hexagon

isosceles triangle

right triangle

obtuse triangle

square

octagon

parallelogram

pentagon

quadrilateral

rectangle

rhombus

isosceles trapezoid