Lesson 14: Ordered Pairs

Problem Set

1. Use the set of ordered pairs below to answer each question.

$$\{(4, 20), (8, 4), (2, 3), (15, 3), (6, 15), (6, 30), (1, 5), (6, 18), (0, 3)\} $$

* 1. Write the ordered pair(s) whose first and second coordinate have a greatest common factor of $3$.
	2. Write the ordered pair(s) whose first coordinate is a factor of its second coordinate.
	3. Write the ordered pair(s) whose second coordinate is a prime number.
1. Write ordered pairs that represent the location of points $A$, $B$, $C$, and $D$, where the first coordinate represents the horizontal direction, and the second coordinate represents the vertical direction.



Extension:

1. Write ordered pairs of integers that satisfy the criteria in each part below. Remember that the origin is the point whose coordinates are $\left(0, 0\right)$. When possible, give ordered pairs such that (i) both coordinates are positive, (ii) both coordinates are negative, and (iii) the coordinates have opposite signs in either order.
	1. These points’ vertical distance from the origin is twice their horizontal distance.
	2. These points’ horizontal distance from the origin is two units more than the vertical distance.
	3. These points’ horizontal and vertical distances from the origin are equal, but only one coordinate is positive.