

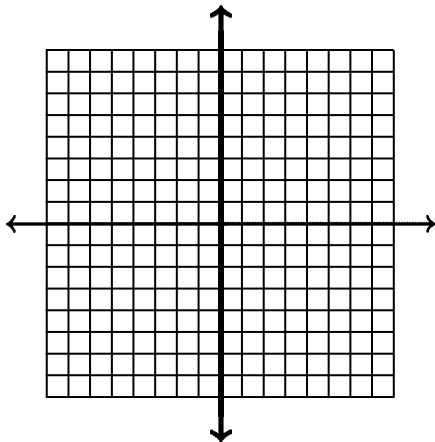
Algebra I Honors
Graphing Patterns 4

Name _____

Per/Sec. _____

1. Connect the two points on the grid below with the longest line that will fit on the grid. Answer the following questions:
- a) What are the coordinates of two other points on the line?

- b) What are the coordinates of the point where the line crosses the y -axis? _____
- c) What is the equation of the line, in the form $y = mx + b$?



2. Four more than three-fifths of a whole number is 31. What is the whole number?

3. A certain line **rises** (climbs or drops) 6 units every time it **runs** (moves to the side) 5 units.
- a) How many units will the line rise if its run is 25 units?

- b) How many units will the line run if its rise is -20 units?

- c) If the point, $(0, 3)$ belongs to the line, what is the equation of the line? _____
4. A pet shop purchased a litter of puppies for \$800. All but three were sold and the total amount from the sale was also \$800. If each puppy was sold for \$60 more than was paid for it, how many puppies were in the litter?
5. A fuel tanker weighs 2500 tons when 25% full and 3700 tons when 75% full. What is its weight in tons when empty?