Quiz 2

Read all directions carefully. You must show all work to receive credit. No notes, book, calculators, mp3 players or phones are allowed during this quiz. Write clearly and make sure to indicate your final answer.
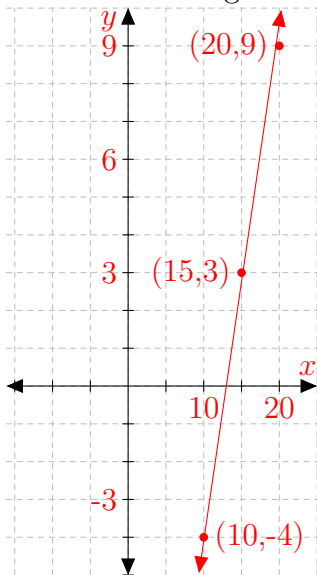
1. Consider the numbers 1.3, 7, -3.1, $\sqrt{11}$, $\dfrac{5}{8}$, -135. For each of the following, list which of these numbers are of that type.

   Natural: 7   Integer: 7, -135   Rational: 1.3, 7, -3.1, $\frac{5}{8}$, -135   Irrational: $\sqrt{11}$ Real: 1.3, 7, -3.1, $\sqrt{11}$, $\frac{5}{8}$, -135

2. Consider the following table.

x	y
10	-4
15	3
20	9

   (a) Create a scattergram of the points. Draw a model on your scattergram
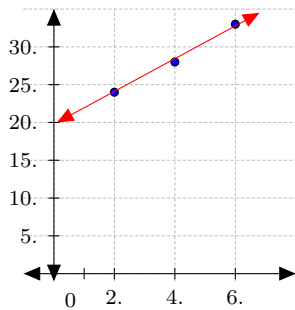

   (b) Estimate the x-intercept of your model. Did you use interpolation or extrapolation?
   The x-intercept of the line is about at $(0, 13)$. This uses interpolation since we are using the model to infer something within the range of the data.

3. For the following, consider the given scattergram. This scattergram gives the salary (in thousands) of a particular employee t years from the date of hire.

(a) Sketch a model.

(b) Estimate and interpret the y-intercept of your model. Did you use interpolation or extrapolation?
The y-intercept looks to be about $(0, 20)$. This means that the starting salary (when $t = 0$) is about 20 thousand dollars. I used extrapolations since I am making deductions which fall outside of the data range.