When a honeybee finds a source of food, it returns to the beehive and communicates to other bees the direction and distance of the source. The bee makes a loop, waggles its belly along a line, makes another loop, and then another waggle. The bee repeats its dance several times. The time for each cycle (one loop and waggle) reveals the approximate distance to the food source.

1. Determine your x and y axis *labels* and *scales*.

Distance to Food (km)	1.35	1.5	1.5	2	2.15	2.65	2.75	3.5	4	5	6
Cycle Time (seconds)	3.5	3.8	3.9	4.4	4.3	5	5.1	5.6	6	7	7.6

2. Construct the *scatter plot* and sketch a *trend line*.
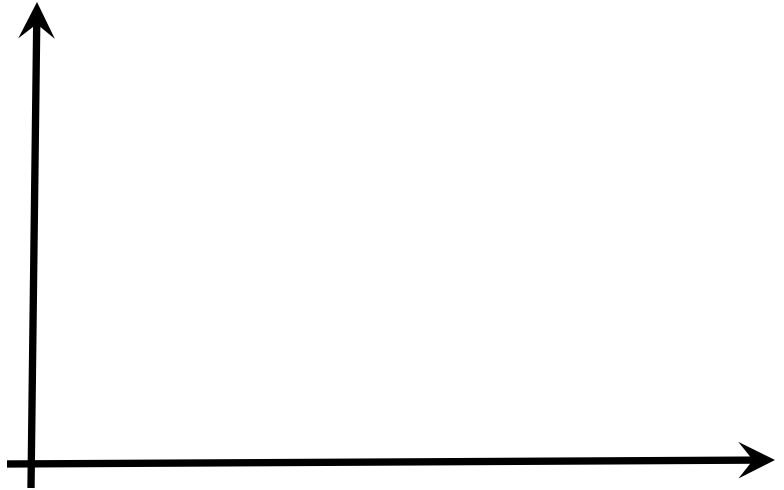
3. In a complete sentence, describe the *correlation* of your data.

4. Create a linear model function (*equation*).
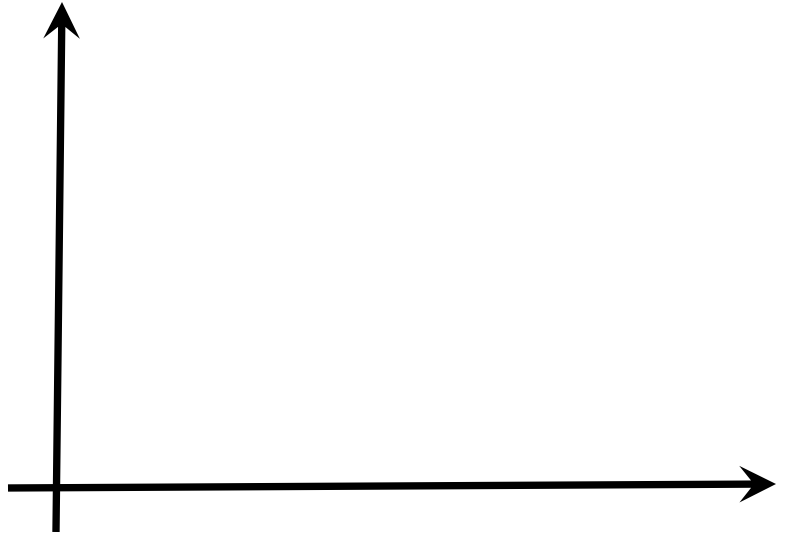
5. Identify the *Domain* and *Range* of the model.

Nutrition The table below shows the relationship between Calories and fat in various fast-food hamburgers.

Hamburger	A	B	C	D	E	F	G	H	I
Calories	720	530	510	500	305	410	440	320	598
Fat (g)	46	30	27	26	13	20	25	13	26

SOURCE: *The Fat Counter*

6. Determine your *x* and *y* axis *labels* and *scales*.

7. Construct the *scatter plot* and sketch a *trend line*.

8. In a complete sentence, describe the *correlation* of your data.

9. Create a linear model function (equation).

10. Identify the *Domain* and *Range* of the model.