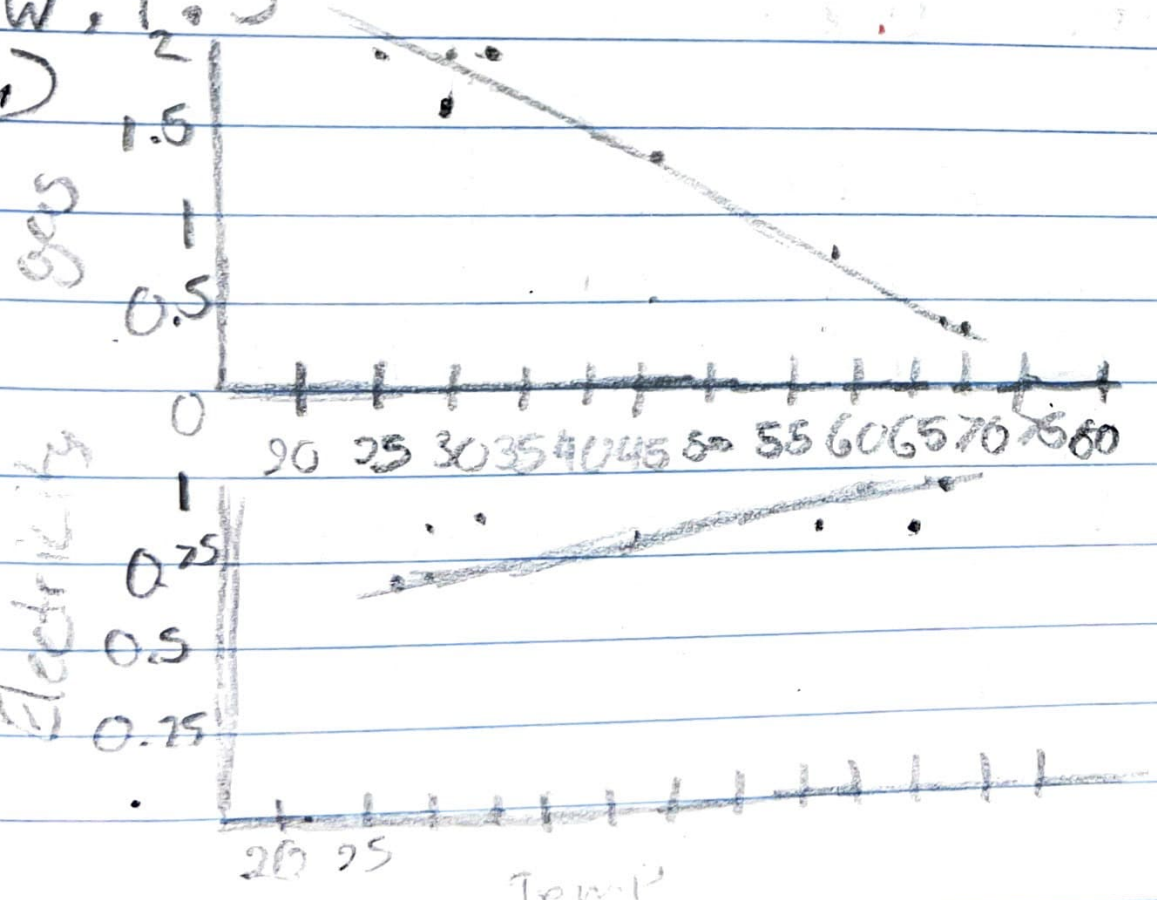
HW: 1.3

(1a)


2
1.5
1
0.5
0
SSS
20 25 30 35 40 45 50 55 60 65 70 75 80
1
0.25
0.5
0.75
Feature
20 25
Temp

(1b) For the relationship between gas price and temp, the price went down as the temp rose. For the relationship between electricity and temp, the price seemed to gradually rise as the temp did

(1c) Gas: $y = -0.035x + 2.84649$
Eletric: $y = 0.003x + 0.66845$
If next February average was 14° gas would be expected to be 2.181 and electric would be 0.725

(2a) Linear, Positive, None, Yes
(2b) Linear, Negative, None, Yes, but not accurate
(2c) Nonlinear, None, Yes, No

1.7

(5a) $y = 4.148x - 153.693$
Slope: 4.148 - For each degree that the temp goes up (F) we can expect there to be about 4 more chirps per minute
Y-Intercept: -153.693: If it was 0 degrees (F) there should be -153.693 chirps per minute but this does not make sense.

(5b) You could use this model by counting the chirps for 15 seconds

and multiply that number by 4 because 15 seconds is a quarter of a minute.

5c) It would make sense to consider the chirps per minute as the dependant variable because temperature can exist without the chirps. And temperature would be the independant variable.

Handout 2

1.1) $Y = 1.5434x + 25.4286$

1.2) Slope: 1.5434 - For every minute that it takes to get to the hospital we can expect the probability of death to increase by 1.54 percent

1.3) Y-Intercept: 25.4286 - If someone had a heart attack at a hospital, there is a 25.4286 percent chance at death

1.4) 66.6045% chance of survival

1.5) -0.7033

2.1 $Y = -7.611x + 16719.6$

2.2 2005 = 1463 (1454.545)
2025 = 1307 (1307.325)
This seems reasonable

2.3 Slope: -7.611 - Every year there are 7.611 less news papers

2.4 Y-Intercept: 16719.6 - At year 0 there were 16719.6 news papers.
IVO

2.5 X-Intercept: By year 2197 (2196.768) there will be no more news papers.
This is reasonable