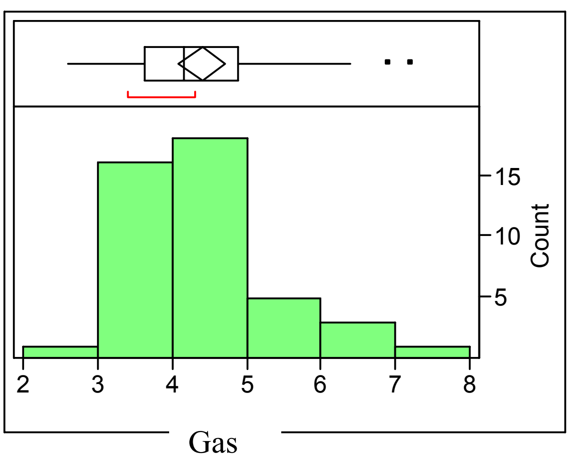
Question: What is the relationship between the outside temperature and the amount of natural gas consumed to heat a house in southeast England?

Data Collection: Data were collected in the 1960s for a house in southeast England. The average outside temperature (in degrees Celsius) and the weekly gas consumption (in 1000 cubic feet) were recorded. There are 26 weeks of data before and 18 weeks of data after cavity-wall insulation was installed.

Data:

Temp	Gas	Insul	Temp	Gas	Insul	Temp	Gas	Insul
–0.8	7.2	0	4.3	5.2	0	7.4	4.2	0
–0.7	6.9	0	5.4	4.9	0	7.5	4.0	0
0.4	6.4	0	6.0	4.9	0	7.5	3.9	0
2.5	6.0	0	6.0	4.3	0	7.6	3.5	0
2.9	5.8	0	6.0	4.4	0	8.0	4.0	0
3.2	5.8	0	6.2	4.5	0	8.5	3.6	0
3.6	5.6	0	6.3	4.6	0	9.1	3.1	0
3.9	4.7	0	6.9	3.7	0	10.2	2.6	0
4.2	5.8	0	7.0	3.9	0			
–0.7	4.8	1	2.3	4.1	1	4.0	3.7	1
0.8	4.6	1	2.5	4.0	1	4.2	3.5	1
1.0	4.7	1	2.5	3.5	1	4.3	3.5	1
1.4	4.0	1	3.1	3.2	1	4.6	3.7	1
1.5	4.2	1	3.9	3.9	1	4.7	3.5	1
1.6	4.2	1	4.0	3.5	1	4.9	3.4	1



Stem	Leaf	Count
7	2	1
6	9	1
6	04	2
5	6888	4
5	2	1
4	56677899	8
4	0000122234	10
3	5555556777999	13
3	124	3
2	6	1

2|6 represents 2.6

Quantiles

100.0%	maximum	7.2000
75.0%	quartile	4.8750
50.0%	median	4.1500
25.0%	quartile	3.6250
0.0%	minimum	2.6000

Moments

Mean	4.3977273
Std Dev	1.0285435
N	44