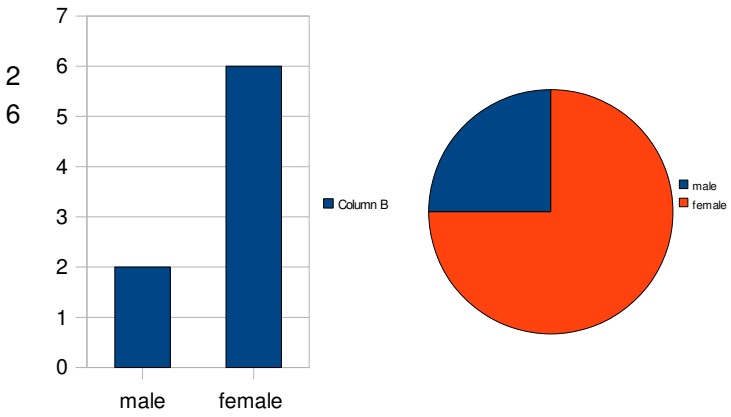
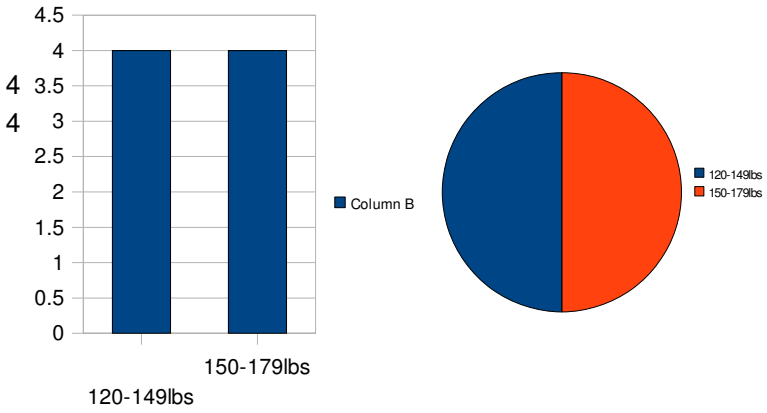
Question 1
gender
male 2
female 6



The pie chart is most useful in this case, since there is no ordering to male and female;
it also brings out nicely that 75% of the class is female and 25% is male.
Mean and average don't make sense here, because the notions of being male and female
are qualitative rather than quantitative.
One sentence summary: 75% of this class is female, which is rather unusual for a math class.

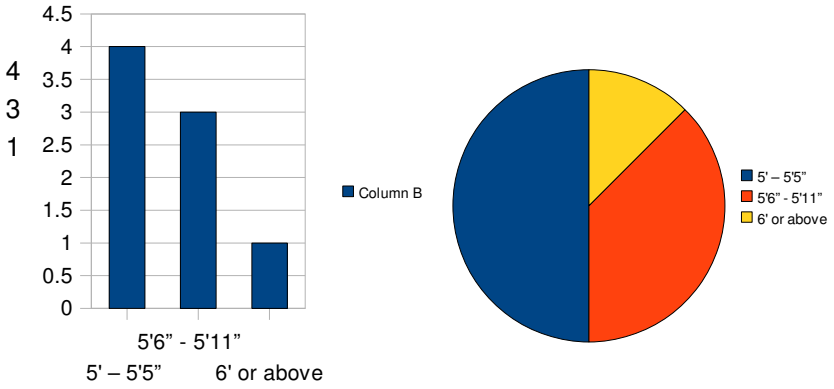
Question 2
weight
120-149lbs 4
150-179lbs 4



The frequency columns are more useful in this case, because there is an ordering to the weights
Since the answers are ranges of numbers rather than single numbers, it is hard to give an average
for the weight distribution in this class.
Sometimes we use the midpoints of intervals to give an estimate for the averages.
In this case that would give us (4*134.5+4*164.5)/8=149.5.
Again, we don't know the median exactly, but it is probably close to 150 lbs.
One sentence summary: half of this class weighs below 150 lbs and all the weights are
between 120 and 179 lbs.

Question 3

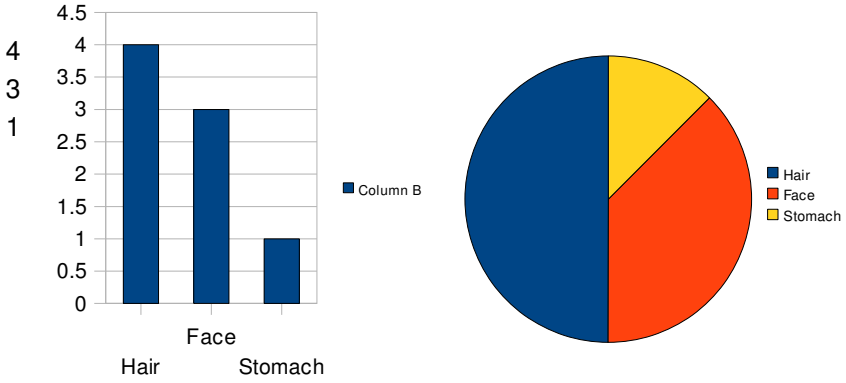
height	
5' – 5'5"	4
5'6" - 5'11"	3
6' or above	1



The frequency columns are more useful in this case, because there is an ordering to the heights, but the pie chart shows nicely that half of the people are in one height class.
It is again hard to determine an average, but it looks as if the median must be close to 5'5" or 5'6".
One sentence summary: Half of this class is less than 5'6" tall and only one person is in the 6' or above range.

Question 4

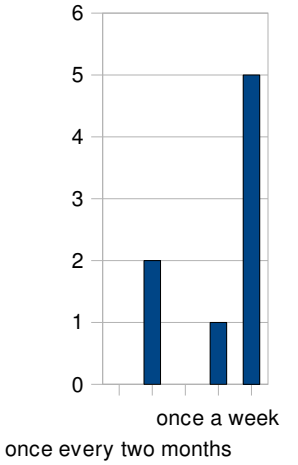
favourite body part	
Hair	4
Face	3
Stomach	1

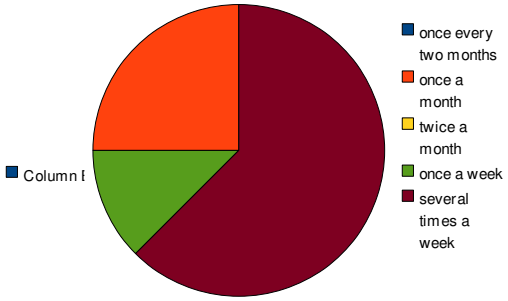


The pie chart is most useful in this case, since there is no ordering to body parts.
Obviously, averages and medians don't have any meaning for this question.
One sentence summary: half of the class considers their hair the favourite part of their body and almost everybody (7/8) chooses a feature of their heads.

Question 5

calling home	
once every two months	0
once a month	2
twice a month	0
once a week	1
several times a week	5

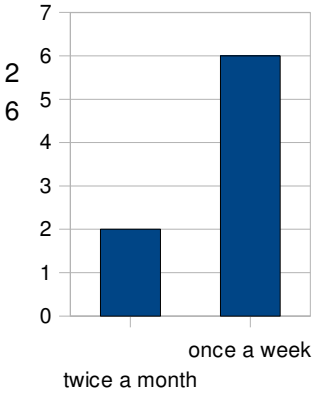


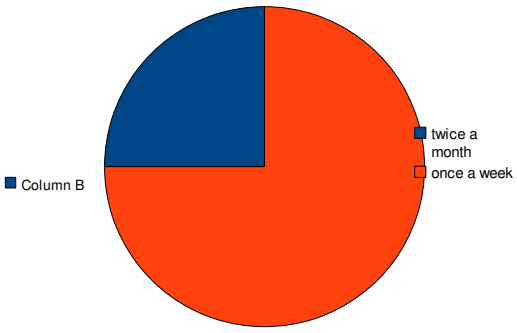


Both ways of representing this data in charts show important features.
The frequency columns (histogram) show us that if you call more frequently than once a month you call every week or more frequently. (There is a gap for “twice a month”.)
The pie chart really brings the message home that a large majority of people in this class calls home several times a week.
If you want to determine an average for calling home, you need to bring this all on a “per month” or “per week” scale. “Once a month” converts to “0.25 times per week”. Now we need to decide what “several” means – we will take that be 3 times. Then the average is (2*0.25+1+5*3)/8=2.0625 times per week. The median is also “several times per week”. The first quartile would be (0.25+1)/2=1.125 times per week and the third quartile is “several times per week”.

Question 6

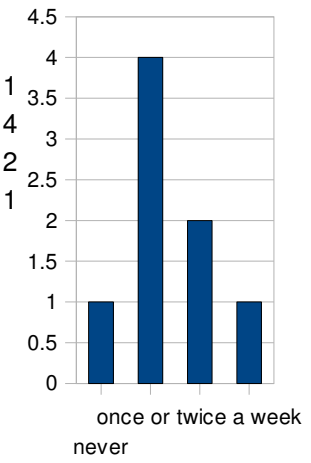
doing laundry	
twice a month	2
once a week	6

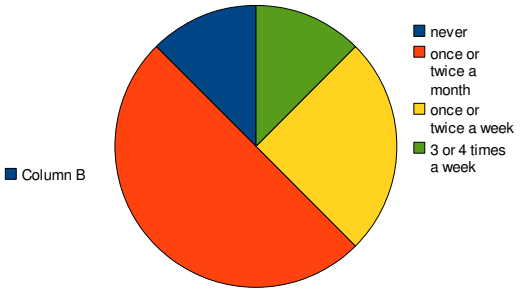




The median of the data is at once a week, and the average is (2*.5+6*1)/8=0.875 times per week. From the pie chart we see clearly that 75% of the people in this call do laundry once a week and the rest does it twice a month.

Question 7
drinking alcohol
never
once or twice a month
once or twice a week
3 or 4 times a week





Both ways of representing this data in charts show important features.
The historgram (frequency columns) makes sense because there is an ordering to the outcomes according to the frequency of using alcohol. It almost looks like a bell curve.
The pie chart shows us again some nice features of the percentages.
The median is “once or twice a month”.
The average cannot be established due to the imprecision of the data.
Half of this class drinks alcohol once or twice a month and a quarter drinks once or twice a week.