

Examples



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Workout

*There are templates for Questions 1 and 2 at the end of this exercise

Question 1: Draw a frequency polygon for each table of information below.

(a)

Goals	Frequency
0	7
1	10
2	12
3	3
4	1

(b)

Days absent	Frequency
0	16
1	5
2	4
3	2
4	1
5	2

(c)

Day	Customers
Monday	14
Tuesday	12
Wednesday	16
Thursday	21
Friday	25
Saturday	8

Question 2: Draw a frequency polygon for each table of information below.

(a)

Marks	Frequency
$0 < m \leq 10$	8
$10 < m \leq 20$	11
$20 < m \leq 30$	23
$30 < m \leq 40$	19
$40 < m \leq 50$	15

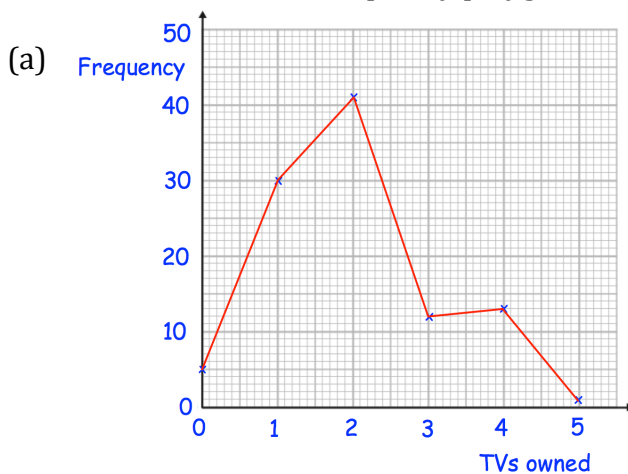
(b)

Time, seconds	Frequency
$0 < t \leq 5$	10
$5 < t \leq 10$	50
$10 < t \leq 15$	75
$15 < t \leq 20$	80
$20 < t \leq 25$	45
$25 < t \leq 30$	35

(c)

Mass, kg	Frequency
$0 < m \leq 1$	7
$1 < m \leq 2$	13
$2 < m \leq 3$	15
$3 < m \leq 4$	6
$4 < m \leq 5$	17
$5 < m \leq 6$	12

Question 3: For each frequency polygon, complete the frequency table.



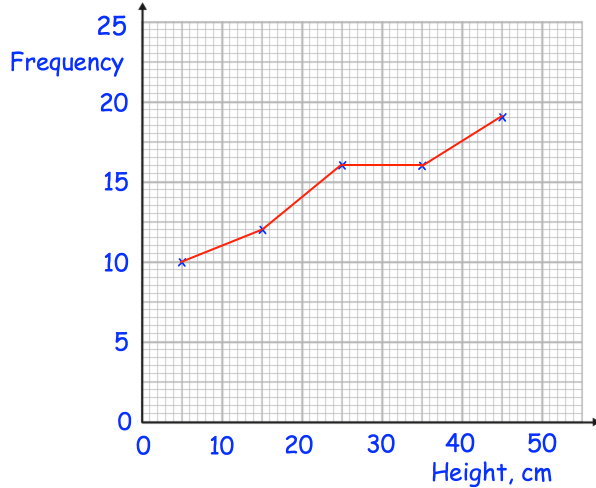
TVs owned	Frequency
0	
1	
2	
3	
4	
5	



Amount Withdrawn	Frequency
£10	
£20	
£30	
£40	
£50	

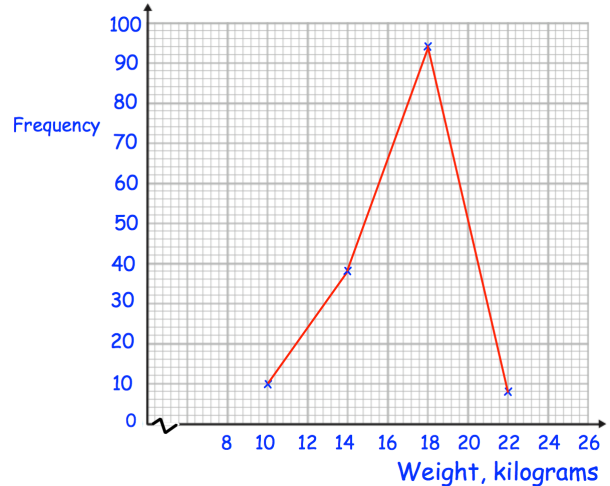
Question 4: For each frequency polygon, complete the frequency table.

(a)



Length, cm	Frequency
$0 < x \leq 10$	
$10 < x \leq 20$	
$20 < x \leq 30$	
$30 < x \leq 40$	
$40 < x \leq 50$	

(b)

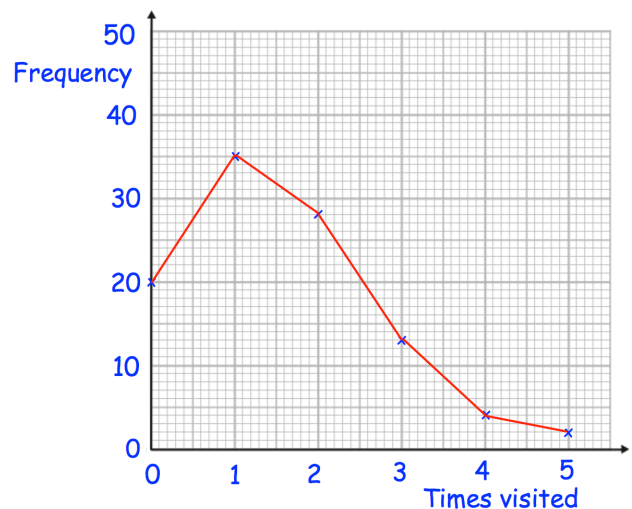


Weight, kg	Frequency
$8 < w \leq 12$	
$12 < w \leq 16$	

Apply

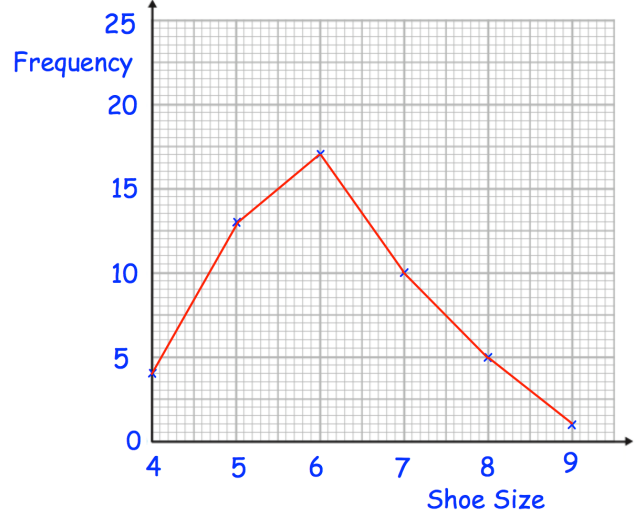
Question 1: Tia asked her friends how many times they visited the cinema last month. The frequency polygon shows her results.

- How many people visited the cinema twice?
- What is most popular number of times that her friends visited the cinema?
- What is the most number of times that somebody visited the cinema?
- How many people did Tia survey in total?



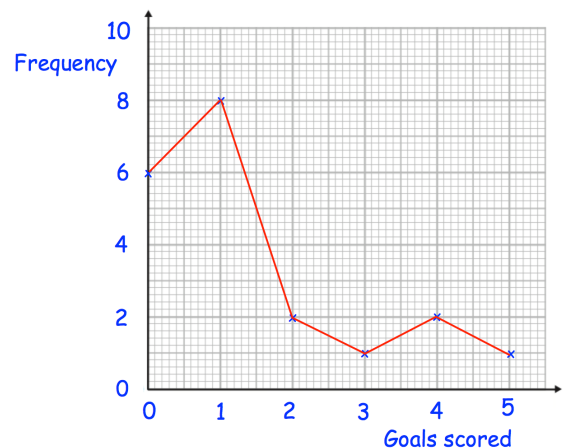
Question 2: Henry surveyed 50 people.
This frequency polygon shows their shoe sizes.

- What is the modal shoe size?
- What is the range of the shoe sizes?
- What fraction of the people surveyed have size 5 shoes?
- What percentage of the people surveyed have size 7 shoes?
- Henry picks somebody at random to win a prize.
Write down the probability that the winner has size 6 shoes.



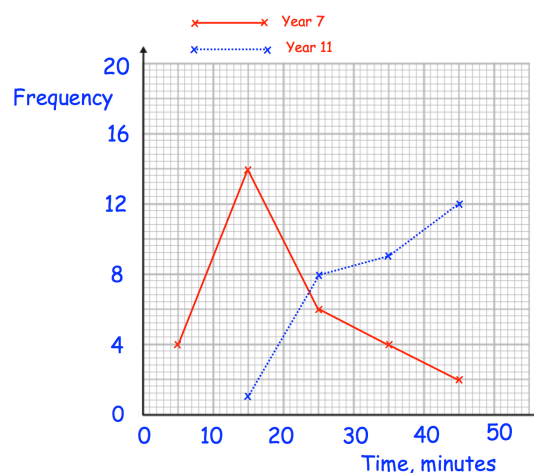
Question 3: Roy is a striker for Rovers.
The frequency polygon shows the number of goals scored in each game over 20 games he has played.

- Work out the median number of goals scored per game.
- Work out the mean number of goals scored per game.
- A journalist asks him for the “average” number of goals scored per game.
Which average should he use?



Question 4: The frequency polygons show the amount of time that 30 students in year 7 and 30 students in year 11 spent on their last maths homework.

Compare the time spent on homework by the year 7s and the year 11s.



Frequency Polygons

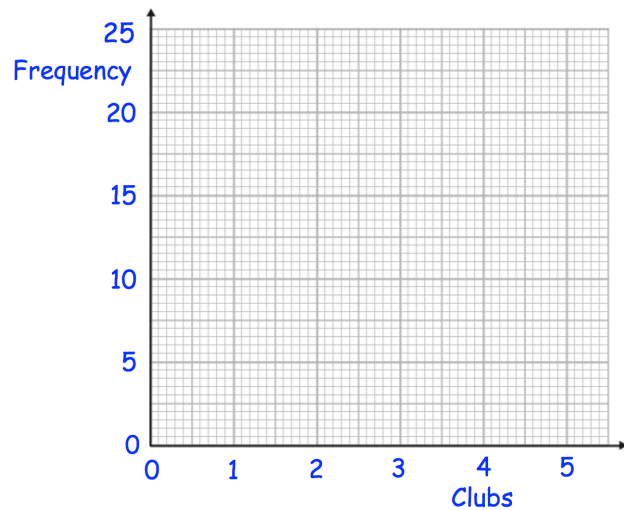
Videos 155 and 156 on www.corbettmaths.com

Question 5: 50 boys and 50 girls attend a primary school.
The table below shows how many clubs they attend.

(a) On the same grid, draw a frequency polygon for the boys and a frequency polygon for the girls.

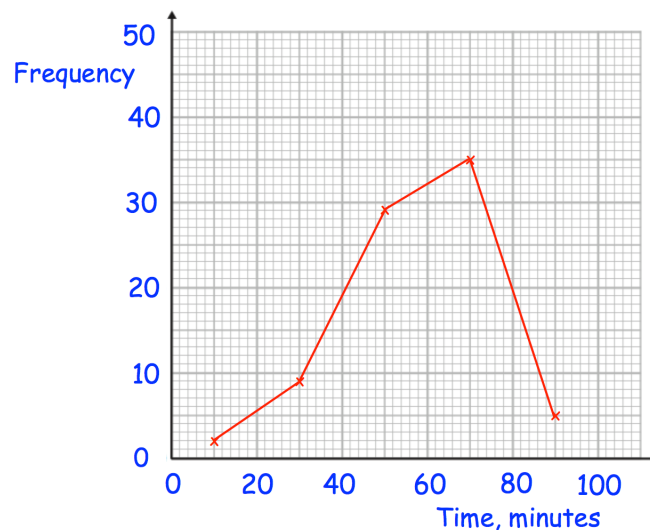
(b) Compare the distributions.

Clubs	Boys	Girls
0	5	2
1	20	18
2	14	22
3	9	7
4	2	1



Question 6: The frequency polygon shows information about the amount of time people spend in the gym.

Calculate an estimate of the mean time spent in the gym.



Answers

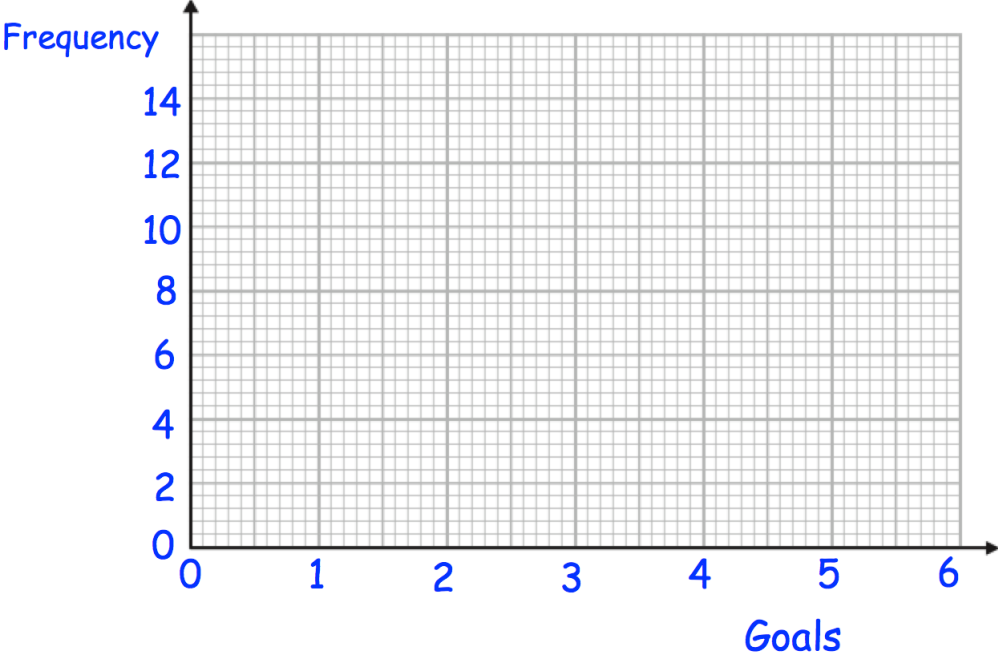


Frequency Polygons

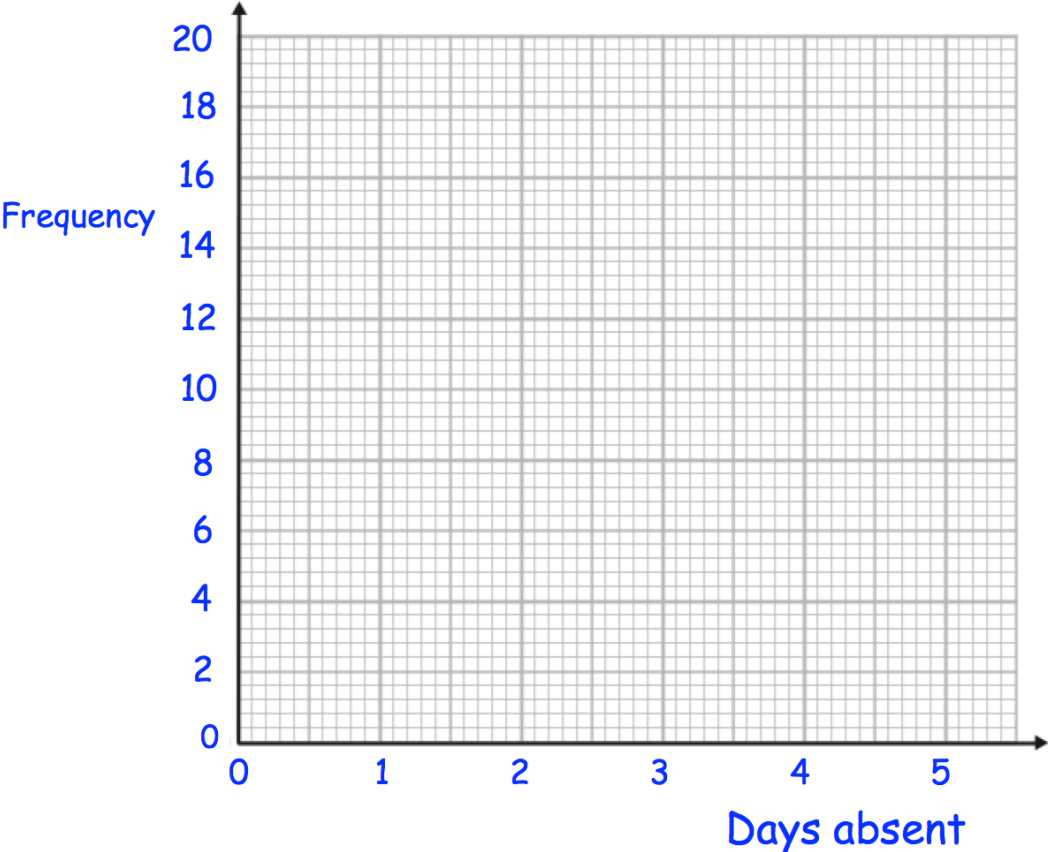
Videos 155 and 156 on www.corbettmaths.com

Templates

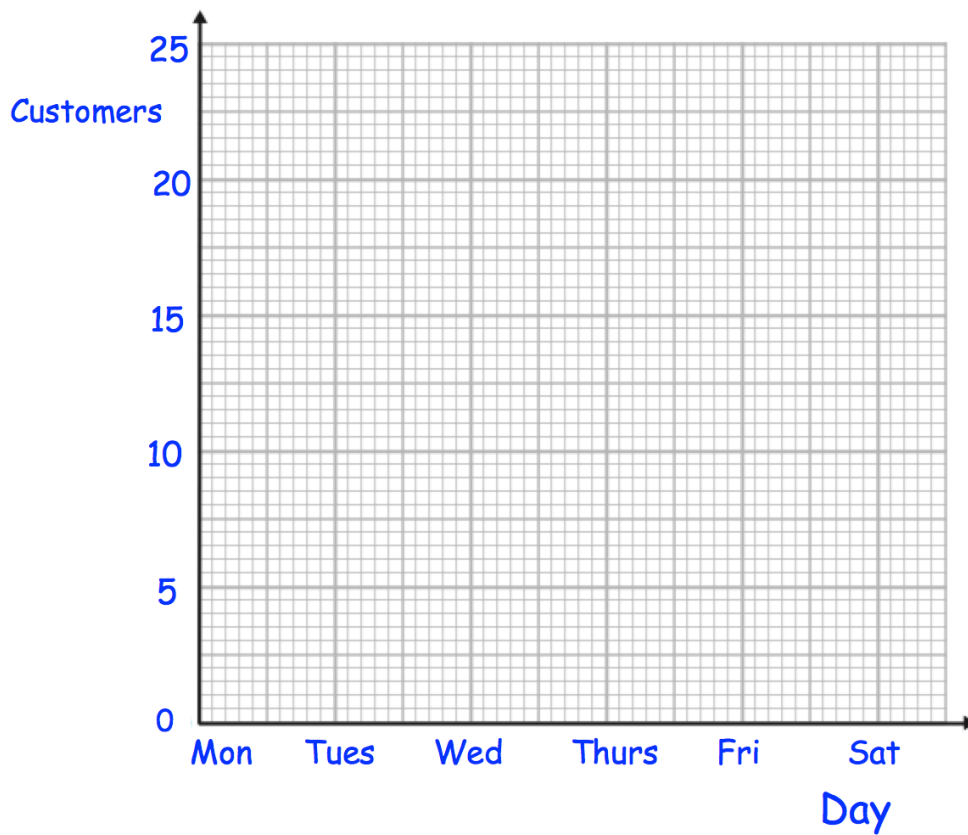
Question 1(a)



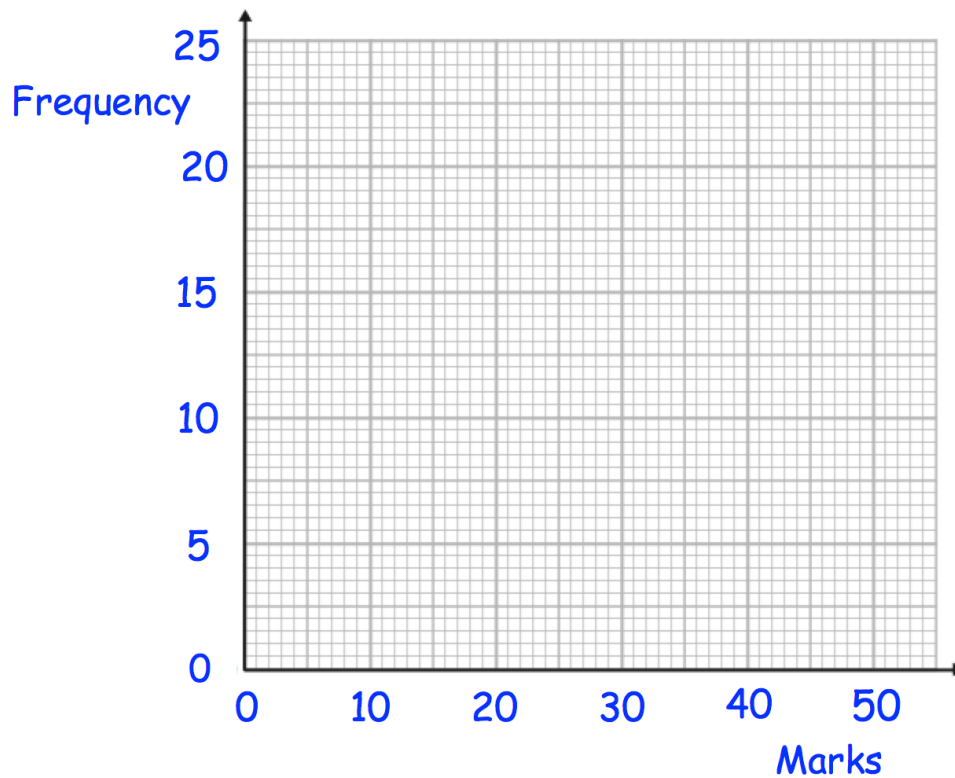
Question 1(b)



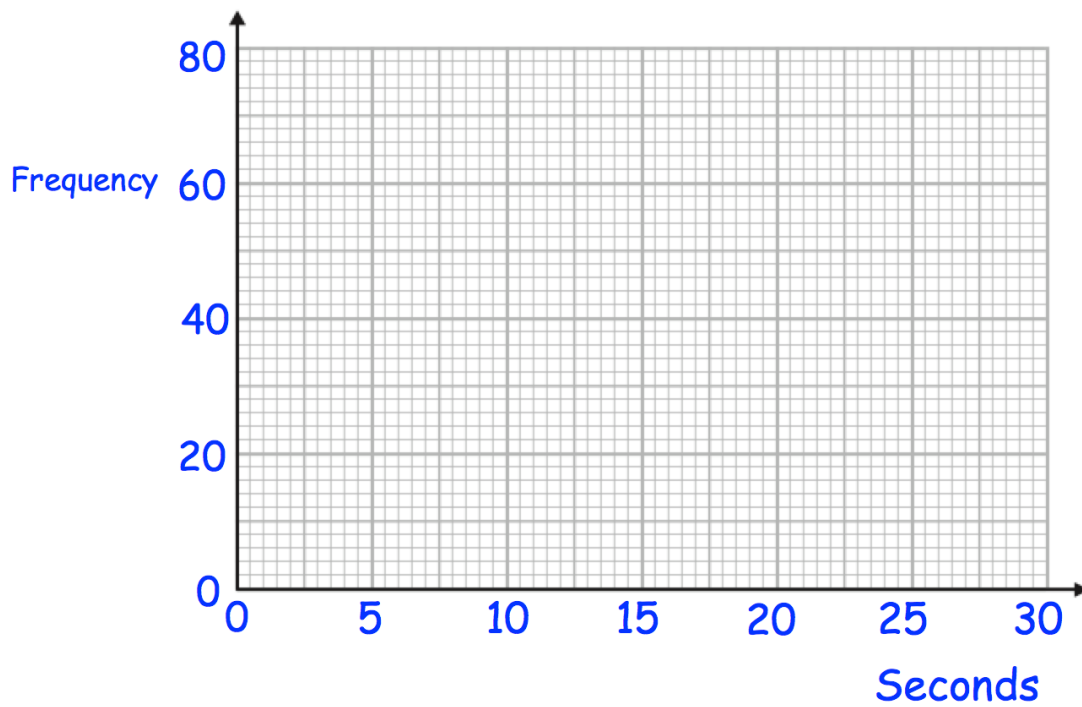
Question 1(c)



Question 2(a)



Question 2(b)



Question 2(c)

