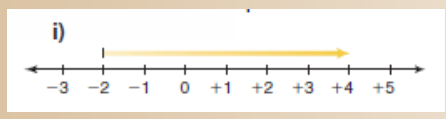
1) (-1) + (-3) −4

2) What is the addition equation for the number line?



(−2)+(+6)

3) Represent the subtraction equation with counters:

(-4) - (-1) ⊖⊖⊖ −3

4) (+4) - (+3) +1

5) 42 ÷ 7 6

6) 18 X 0.5 9

7) 421 X 2 842

8) What number is divisible by 4? a) 125 b)228 c) 121

9) What number is divisible by 6? a)202 b)333 c)330 330

10)1/3 of 9 3 1 1

What time did you get up today?

7:35 - 5:30

Range 2:05

Mean 7:22

Median 7:02

Mode 7:00

5:30
7:20
7:00
2:00
7:15
7:15
7:30
7:35

7:05
7:00
7:30
6:48
6:30
6:00

Outlier
5:30

5:30
6:00
6:30
6:48
7:00
7:00
7:00
7:05
7:15
7:15
7:20
7:30
7:30
7:35

1. This set of data represents the waiting time, in minutes, at a fast-food restaurant:
5, 5, 5, 6, 5, 7, 0, 5, 1, 7, 7, 5, 6, 5, 5, 5, 8, 5, 0, 5, 4, 5, 2, 7, 9

a) Calculate the mean, median, and mode.

b) Identify the outliers. Explain your choice.

c) Calculate the mean, median, and mode without the outliers. How is each average affected when the outliers are not included?

Remember t arrange the in order befc finding the median.

2. Bryan recorded the time he spent on the school bus each day for one month. Here are the times, in minutes:
15, 21, 15, 15, 18, 19, 14, 20, 95, 18, 21, 14, 15, 20, 16, 14, 22, 21, 15, 19

a) Calculate the mean, median, and mode times.

b) Identify the outlier. How can you explain this time?

c) Calculate the mean, median, and mode times without the outlier. How is each average affected when the outlier is not included?

d) A classmate asks Bryan, "What is the average time you spend on the bus each day?" How should Bryan answer? Give reasons.

4. Here are the science test marks out of 100 for the Grade 7 students in a combined-grades class:
0, 66, 65, 72, 78, 93, 82, 68, 64, 90, 65, 68

a) Calculate the mean, median, and mode marks.
b) Identify the outlier. How might you explain this mark?
c) Calculate the mean, median, and mode marks without the outlier. How is each average affected when the outlier is not included?
d) Should the outlier be used when reporting the average test mark? Explain.

6. **Assessment Focus** A Grade 7 class wanted to find out if a TV advertisement was true.
The ad claimed that *Full of Raisins* cereal guaranteed an average of 23 raisins per cup of cereal.
Each pair of students tested one box of cereal.
Each box contained 20 cups of cereal.
The number of raisins in each cup was counted.

a) Assume the advertisement is true.
How many raisins should there be in 1 box of cereal?

b) Here are the results for the numbers of raisins in 15 boxes of cereal:
473, 485, 441, 437, 489, 471, 400, 453, 465, 413, 499, 428, 419, 477, 467

i) Calculate the mean, median, and mode numbers of raisins.

ii) Identify the outliers. Explain your choice.

iii) Calculate the mean, median, and mode without the outliers.
How do the outliers affect the mean?

iv) Should the outliers be used when reporting the average number of raisins? Explain.

v) Was the advertisement true? Justify your answer.

7. **Take It Further** Here is a set of data: 2, 3, 5, 5, 7, 8
An outlier has been removed.

a) Calculate the mean, median, and mode without the outlier.

b) The outlier is returned to the set.
The averages become:
Mean: 7 Median: 5 Mode: 5
What is the outlier? Show your work.