

Lesson 6:
Distribution Tables



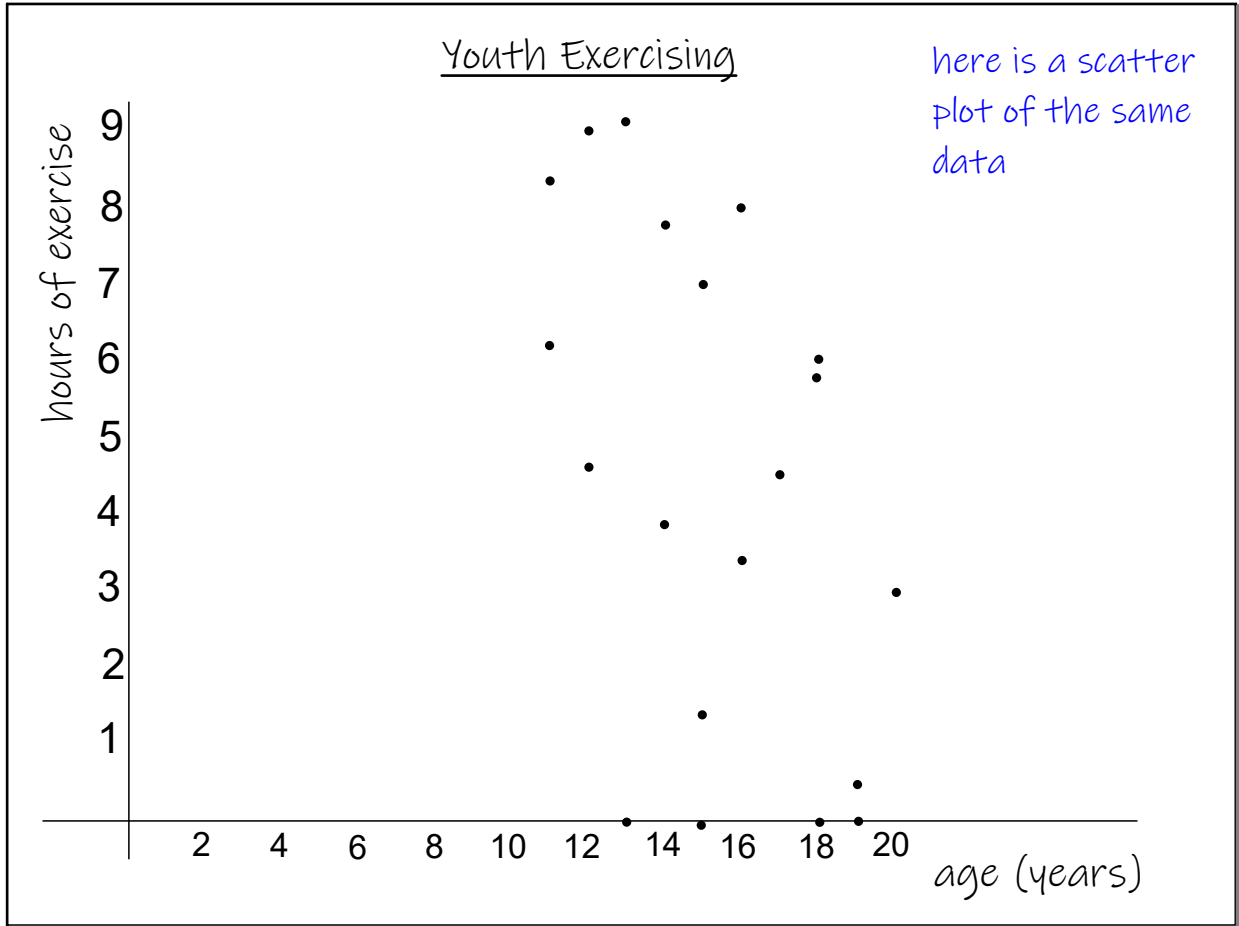
Apr 19-3:18 PM

Data about two variables can be shown in different ways:

example: a researcher did a survey of 20 young people between the ages of 11 and 21 to determine how much exercise they did each week. The data is given as an order pair, with x being age and y being # of hours.

(12, 4.6) (11, 6.2) (11, 8.3) (12, 9) (13, 9.1) (14, 7.8) (14, 3.9)
(13, 0) (15, 0) (15, 1.4) (16, 3.4) (15, 7) (16, 8) (18, 0) (17, 4.5)
(18, 6) (19, 0) (19, .5) (20, 3) (18, 5.9)

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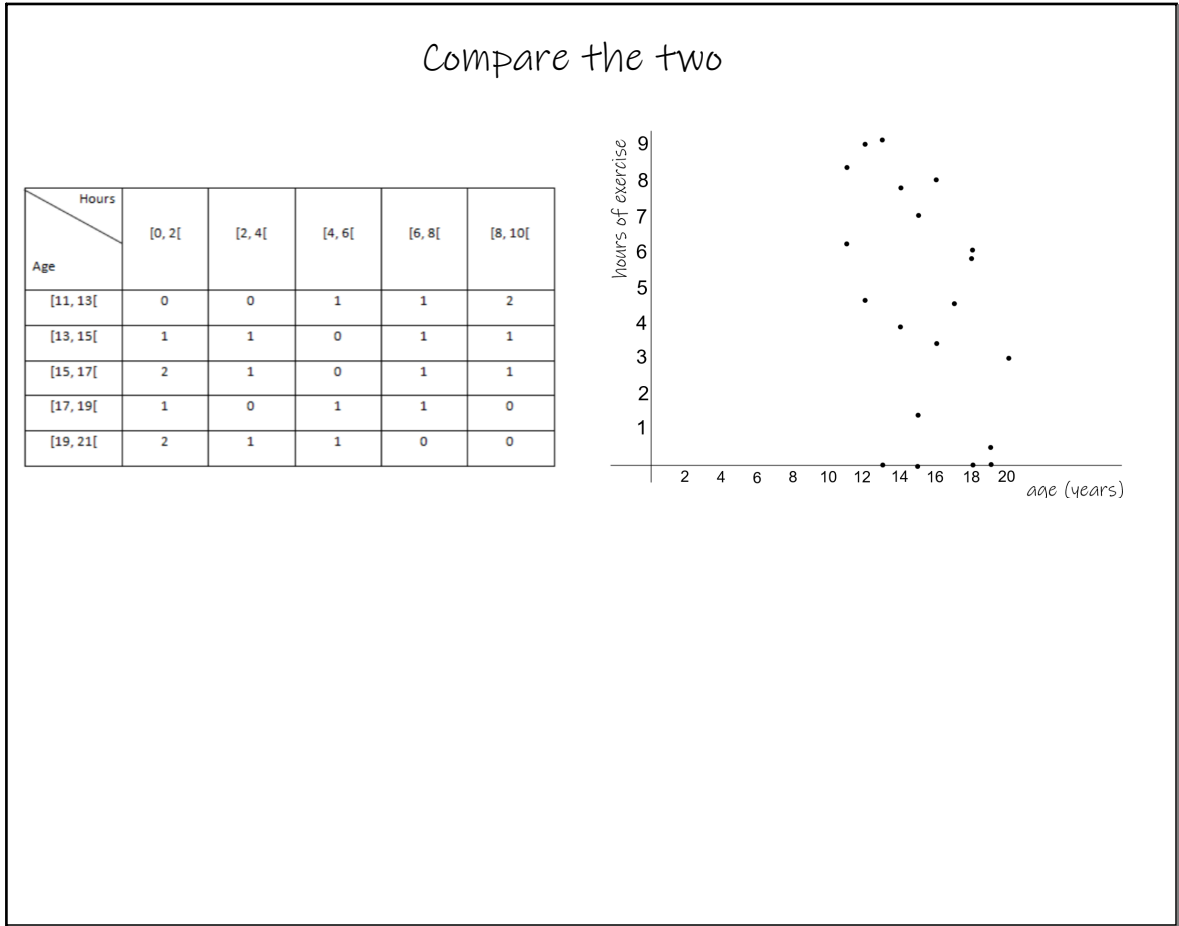


here is a Distribution Table of the same data

Youth Exercising

Hours \ Age	[0, 2[[2, 4[[4, 6[[6, 8[[8, 10[
[11, 13[	0	0	1	1	2
[13, 15[	1	1	0	1	1
[15, 17[	2	1	0	1	1
[17, 19[	1	0	1	1	0
[19, 21[	2	1	1	0	0

Mar 26-10:37 AM

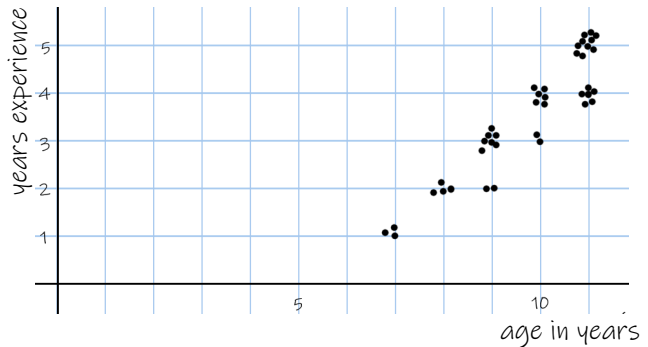


Mar 26-10:41 AM

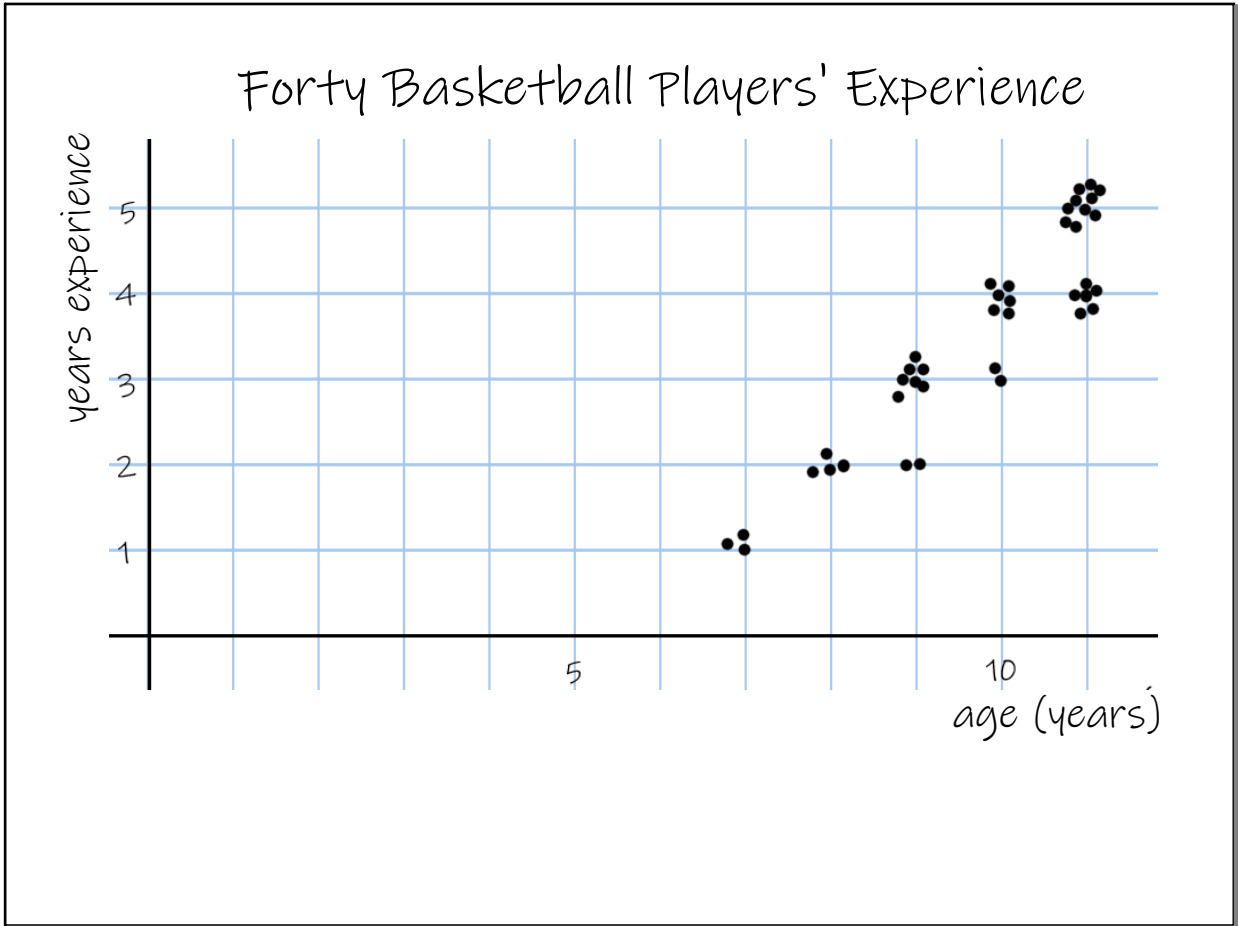
example: data of 40 elementary school basketball players: their age and their years experience

(7, 1) (7, 1) (7, 1) (8,2) (8,2) (8,2) (8,2) (9,2) (9,2) (9,3) (9,3) (9,3) (9,3) (9,3) (9,3)
 (9,3) (10,3) (10,3) (10,4) (10,4) (10,4) (10,4) (10,4) (10,4) (11,4) (11,4) (11,4)
 (11,4) (11,4) (11,4) (11,5) (11,5) (11,5) (11,5) (11,5) (11,5) (11,5) (11,5) (11,5) (11,5)
 (11,5)

Experience (years)						
		1	2	3	4	5
Age (years)	7	3	0	0	0	0
	8	0	4	0	0	0
	9	0	2	7	0	0
	10	0	0	2	6	0
	11	0	0	0	6	10



Mar 26-10:17 AM



Mar 26-10:35 AM

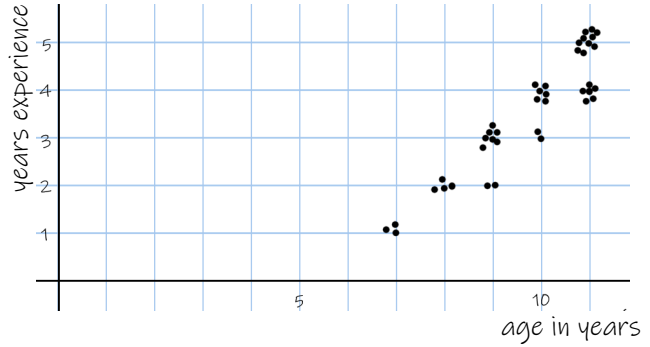
Forty Basketball Players' Experience

Experience (years)					
Age (years)	1	2	3	4	5
7	3	0	0	0	0
8	0	4	0	0	0
9	0	2	7	0	0
10	0	0	2	6	0
11	0	0	0	6	10

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compare the 2

Experience (years) \ Age (years)	1	2	3	4	5
7	3	0	0	0	0
8	0	4	0	0	0
9	0	2	7	0	0
10	0	0	2	6	0
11	0	0	0	6	10



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example

The table below shows the distribution of 24 members at a health club, according to their age and the number of workouts they did last month.

Age (years)	Number of Workouts					
	[1, 5[	[5, 9[	[9, 13[	[13, 17[	[17, 21[	[21, 25[
[18, 25[	1	1	1	0	0	0
[25, 32[	1	1	1	0	1	0
[32, 39[	0	1	2	1	1	0
[39, 46[	0	1	1	1	1	1
[46, 53[	0	0	2	0	1	0
[53, 60[	0	0	1	1	1	1

By filling in the two appropriate boxes, correctly describe the linear correlation between the age of the 24 members and the number of workouts they did last month.

ANSWER:

The linear correlation between the age of the 24 members and the number of workouts they did last month is

positive <input checked="" type="checkbox"/>	and	strong <input type="checkbox"/>
negative <input type="checkbox"/>		weak <input checked="" type="checkbox"/>

May 20-4:40 AM

example

Over the course of a given week, 39 members of a reading club went to the library.

The table below shows the ages of these 39 members and the number of times they visited the library that week.

(13,5) (13,3) (13,4) (13,4) (13,5)
(13,5) (13,5) (13,5) (13,3) (13,5)

(14,3) (14,4) (14,2) (14,4) (14,5)
(14,4) (14,5) (14,4) (14,3)

(15,3) (15,3) (15,1) (15,2) (15,2)
(15,4) (15,2) (15,2) (15,3) (15,3)

(16,1) (16,1) (16,1) (16,3) (16,2)
(16,2) (16,1) (16,1) (16,2) (16,1)

Which one of the following statements best describes the LINEAR CORRELATION between the ages of the members and the number of library visits?

- A) The correlation is positive and high.
- B) The correlation is positive and low.
- C) The correlation is negative and high.
- D) The correlation is negative and low.

ANSWER:



May 20-4:42 AM

Apr 19-3:17 PM