SCATTER PLOTS

Chapter 5
Section 4

SCATTER PLOTS

- **Scatter plot**: series of points on the same graph that compares data

- Steps to Draw a Scatter plot:
  - 1. Draw a coordinate plane (either a full version or an L-graph depending on the data).
  - 2. Plot all the data points you are given
  - 3. Plot a line of best fit- line through the data that cuts through the data so that there are the same amount of points above and below
  - 4. Make predictions using your data

EXAMPLE

Hours	3	5	6	8
Rental Charge (dollars)	14	20	24	32

$y = 4x$
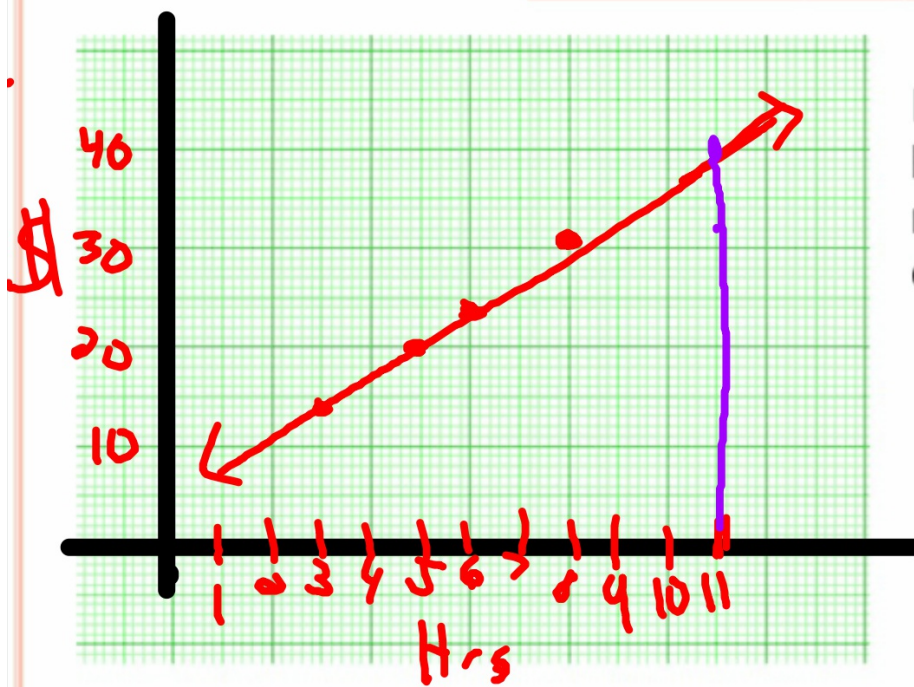
If you rent for 11 hours, about how much is the rental charge??

$(5, 20)(6, 24)$

$m = \dfrac{24-20}{6-5} = \dfrac{4}{1} = 4$

$y = mx + b$

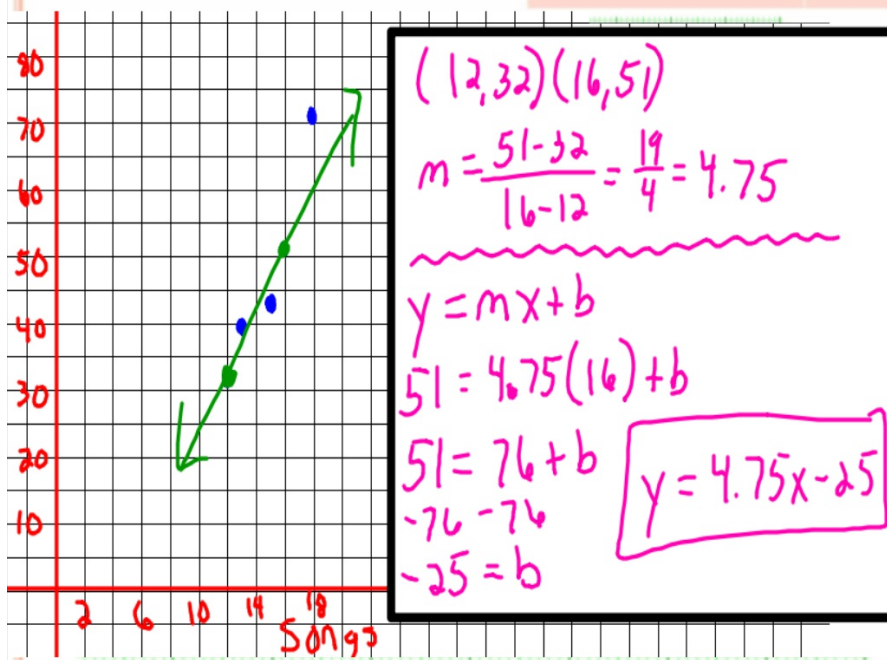$20 = 4 \cdot 5 + b$

$20 = 20 + b \quad b = 0$

40
$30
20
10

1 2 3 4 5 6 7 8 9 10 11

Hrs

EXAMPLE

Number of Songs (s)	15	12	13	16	18
Number of Minutes (m)	44	32	40	51	72

$(12, 32) (16, 51)$

$m = \dfrac{51-32}{16-12} = \dfrac{19}{4} = 4.75$

$y = mx + b$

$51 = 4.75(16) + b$

$51 = 76 + b$
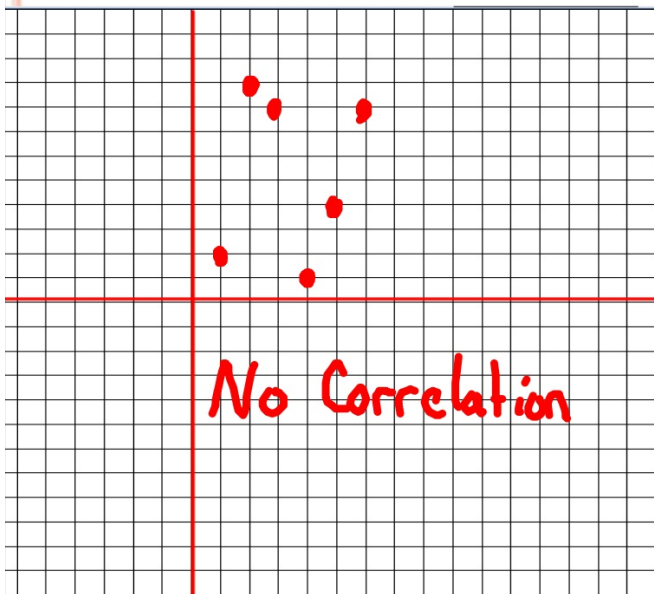
$-76 \quad -76$

$-25 = b$

$\boxed{y = 4.75x - 25}$

What is the relationship between the data?

If there are 22 songs, about how many minutes will the CD be?

CLASS WORK

○ Pg 296 # 6-8

No Correlation

⑧

(1.7, 5

$m = \dfrac{7}{3.}$

$m = \dfrac{2.}{1.8}$
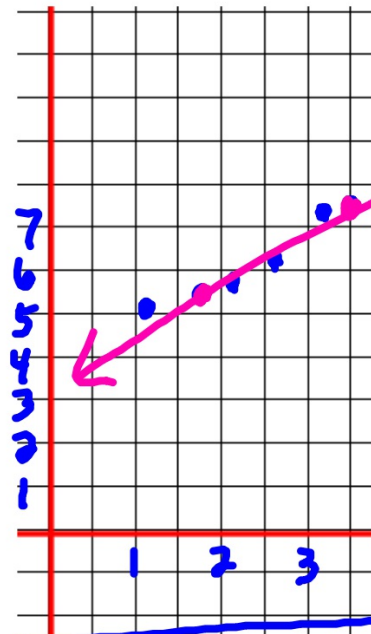
Positive Correlation

$y = mx + b$

$5.5 = 1.17(1.7) + b$

$5.5 = 1.99 + b$

$3.51 = b$

$y = 1.17x + 3.51$

HOMEWORK

- Pg 296 # 7,9,17-22