

Date:- 13-JULY-2020 Sindhu. S
 Course:- Mathematics for Machine Learning : Linear Algebra. 4AL18EC049
 4th Sem, 'A' Sec

• Introduction to Mathematics.

-& The relationship b/w Machine learning, linear algebra and vectors

• Motivations for linear algebra

$$2a + 3b = 8$$

$$10a + 1b = 13$$

$$\begin{bmatrix} 2 & 3 \\ 10 & 1 \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} = \begin{bmatrix} 8 \\ 13 \end{bmatrix}$$

2. Creating a handle on vectors.

• Vectors:-

→ operations with vectors:-

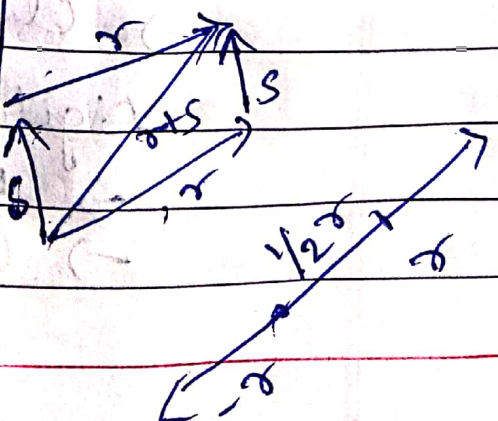
120 sqm

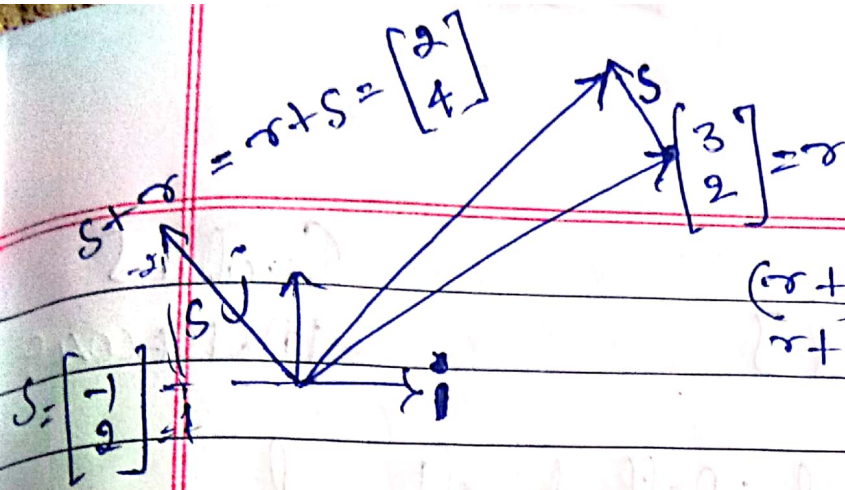
2 bedrooms

1 bathroom

€ 150,000

$$2x \begin{bmatrix} 120 \\ 2 \\ 1 \\ 150 \end{bmatrix} = \begin{bmatrix} 240 \\ 4 \\ 2 \\ 300 \end{bmatrix}$$





$$(r+s) + t$$

$$r + (s+t)$$

• Vector and with defining vector addition and Scalar Multiplication

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Course: Salesforce [Trailhead]

ATLISECO49

- Get started with trailhead

- who is trailhead for?

- Trailhead for everyone.

Trailhead content blends a variety of content types and approaches to cater to all types of learners

- Slides

- Code samples

- Images

- Find your way Around Trailhead.

- A single learning topic

- how is a project different from a hands on challenge?

- Troubleshoot and find answers to common questions.

- Trailhead playground Management.

- Create a trailhead playground

- Get your trailhead playground Username and password.

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Course: Revision class

Microcontroller

Sindhu. S

AA18BC049

4th Sem, 'A' Sec.

→ Block diagram of 8051 Micro controller.

- Binary forms stored on the on-chip ROM for code.

- Serial port → TXD, RXD.

- Features of 8051

- 1) 4K ROM

- 2) 128 bytes RAM

- 3) CPU

- 4) Four 8 bits ports

- 5) clock oscillator

- 6) Serial I/O Controller

→ The mostly used widely used register

- Accumulator

- DPTR

- PC

- B, R0, R1, R2, R3, R4, R5, R6, R7.

→ Bank of 8051

→ Registers of 8051

Each bank as 8-Registers Rotates

→ Program Counter.

→ Data pointer - DPTR.

The program status word (PSW)

Ac → A Carry from D3 to D4.

CY → Carry out from the dx bit

- pin diagram of 8051

- pin description: XTAL1 and XTAL2

- Port 0

- Port 1 and Port 2

- Arithmetic instructions.

- Logical instructions.

8051 Architecture

8051 has following features:

1. 4K ROM
2. 128 Bytes RAM
3. Two 16 bit timers- T0 and T1
4. CPU
5. Four 8 bit ports
6. Serial I/O controller
7. Interrupt controller
8. Clock oscillator

Diagram OF 8051 Micro

er

