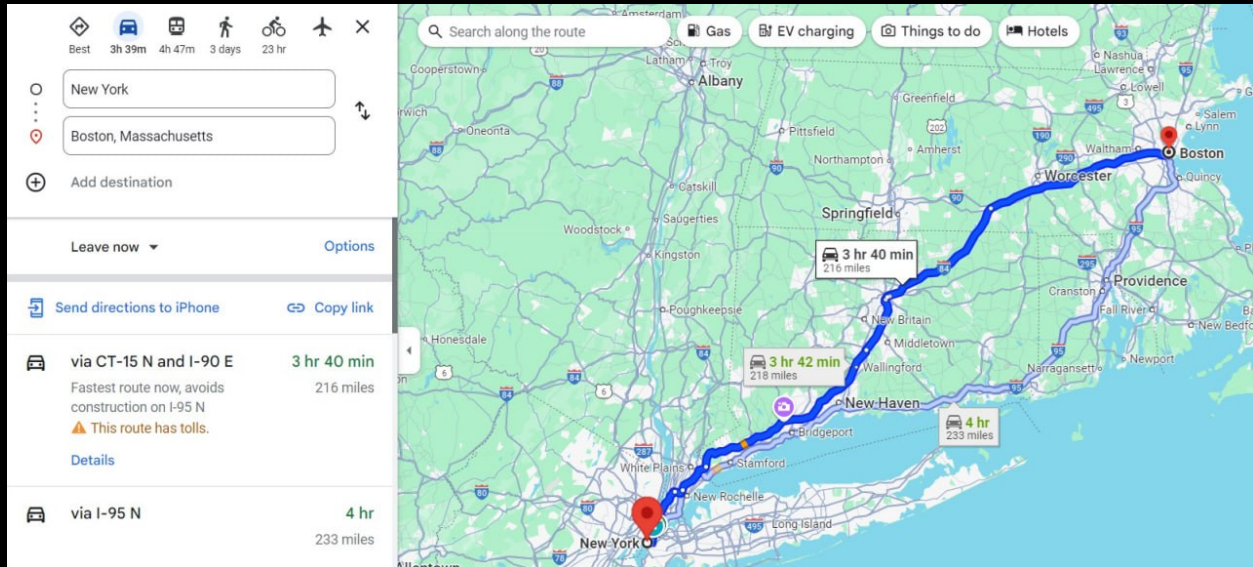


Physics Oc

Gleb
Aminov

- Use full name in Zoom
- Turn the video on
- Ask questions!
- HW is important!
- Provide clear logical solutions
- Write your HW on a separate piece of paper

Units of Length.



Why do we need units?
 $3 \text{ min} \neq 3 \text{ days}!$

Metric System	Imperial System
1 mm	1 inch
1 cm = 10 mm	1 foot = 12 inches
1 m = 100 cm = 1000 mm	1 yard = 3 feet 36 inches
1 Km = 1000 m	1 mile = 5280 feet = 1760 yards

Many other phys. quantities!

- length

- time

- momentum

- mass

- volume

- force

- energy

Ants!



in a day: 3 to 4 miles!
5 to 6.5 Km.

length: 6 mm.

steps: 2 mm long.

take: 6 km.

Elise: 60 000

Wendi: 50 000

Ela: 20 000

Scientific notation

$$6\,000\,000 = 6.0 \times 10^6$$

$$6.0 \times 10^6 = \underbrace{6.000000.0}$$

$$0.0005 = 5 \times 10^{-4}$$

$$5.0 \times 10^{-4} = \underbrace{0.0005}$$

→ One digit before a decimal point:

$$5.4 \cdot 10^5 \times 3 \cdot 10^3 =$$

$$= 5.4 \cdot 3 \times 10^3 / 10^5 = 16.2 \cdot 10^{5+3}$$

$$= 16.2 \cdot 10^8 = 1.62 \cdot 10^9$$