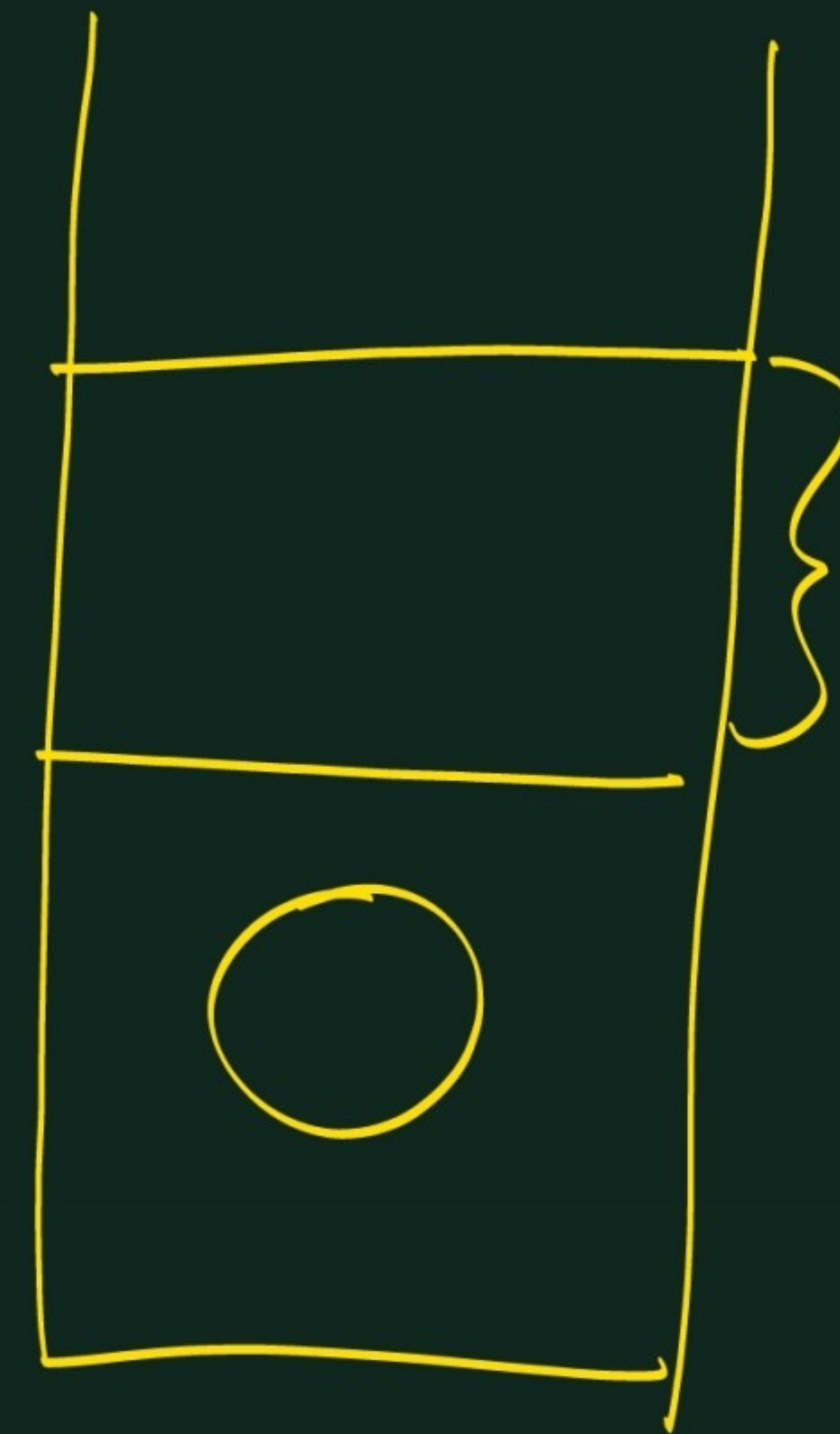


$$1 \text{ \AA} = 10^{-10} \text{ m (διάμετρος ατόμου)}$$

$$1 \text{ mm} = 10^{-3} \text{ m}$$

$$1 \text{ mm}^2 = \left(10^{-3} \text{ m}\right)^2 = 10^{-6} \text{ m}^2$$

$$1 \text{ mm}^3 = \left(10^{-3} \text{ m}\right)^3 = 10^{-9} \text{ m}^3$$



όγκος ανυψώσεων

$$\eta \text{ συκνότητα} = \frac{\text{μάζα}}{\text{όγκος}}$$

$$\rho = \frac{m}{V}$$

$$1 \text{ g} = 10^{-3} \text{ kg.}$$

$$1 \text{ cm}^3 = (10^{-2} \text{ m})^3 = 10^{-6} \text{ m}^3$$

$$1 \text{ g/cm}^3 = \frac{1 \text{ g}}{1 \text{ cm}^3} = \frac{10^{-3} \text{ kg}}{10^{-6} \text{ m}^3} = 10^{-3 - (-6)} \text{ kg/m}^3 = 10^3 \text{ kg/m}^3$$

$$\text{Άρα: } 1 \text{ g/cm}^3 = 10^3 \text{ kg/m}^3 = 1000 \text{ kg/m}^3$$

$1 \text{ g/cm}^3 \rightarrow$ πυκνότητα
στερεών ή υγρών

$1 \text{ kg/m}^3 \rightarrow$ πυκνότητα
αερίων.

Άσκ. 1.11

$$\begin{aligned} \theta) 80 \text{ nm} &= 80 \cdot 10^{-9} \text{ m} = \\ &= 8 \cdot 10^1 \cdot 10^{-9} \text{ m} = 8 \cdot 10^{-8} \text{ m} \end{aligned}$$

$$1 \text{ g/cm}^3 = \frac{10^{-3} \text{ kg}}{10^{-6} \text{ m}^3} = 10^{-3+6} \text{ kg/m}^3 \Rightarrow$$

$$1 \text{ g/cm}^3 = 1000 \text{ kg/m}^3$$

$$1 \text{ cm} = 10^{-2} \text{ m}$$

$$1 \text{ cm}^3 = (10^{-2} \text{ m})^3 = 10^{-6} \text{ m}^3$$

$\text{kg/m}^3 \rightarrow$ πυκνότητα αερίων

$\text{g/cm}^3 \rightarrow$ πυκνότητα υγρού ή στερεού.

A6u.11)

8) $y = 2x + 2$

$y = 4x + 2$

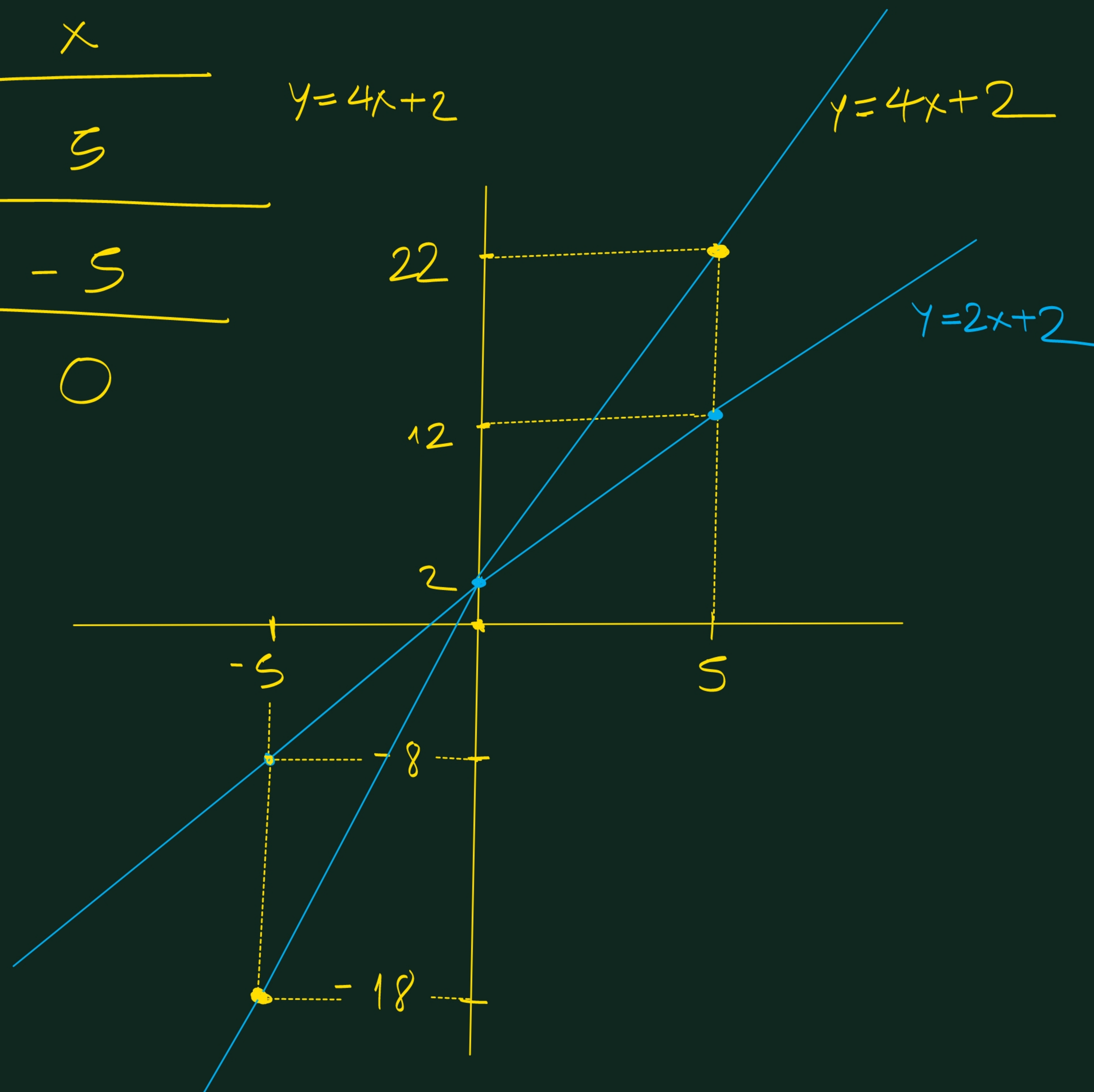
$-5 \leq x \leq 5$

y	x
22	5
-18	-5
2	0

$y = 4x + 2$

$y = 2x + 2$

y	x
12	5
-8	-5
2	0



Ass. 20)

$$|a_{02}| = \sqrt{a_1^2 + a_2^2 + 2a_1a_2 \cos \theta}$$

$$\cos 60^\circ = \frac{1}{2}$$

$$\cos 120^\circ = \cos(180^\circ - 60^\circ) = -\frac{1}{2}$$

$$F_{02} = \sqrt{F_1^2 + F_2^2 + 2F_1F_2 \cos \theta} \Rightarrow$$

$$\sqrt{13} = \sqrt{3^2 + 4^2 + 2 \cdot 3 \cdot 4 \cdot \cos \theta} \Rightarrow$$

$$13 = 9 + 16 + 24 \cos \theta \Rightarrow$$

$$13 = 25 + 24 \cos \theta \Rightarrow$$

$$\frac{-12}{24} = \frac{24 \cos \theta}{24} \Rightarrow \cos \theta = -\frac{1}{2} \Rightarrow \theta = 120^\circ$$