

AUTUNNS ANNUALIS
2339 1100

$$A(2, 3, 3)$$

$$B(9, 1, 0)$$

$$\Gamma(4, 5, 1)$$

$$D(1, 3, 6)$$

1)

A) Aministers ~~entfernen~~ ~~entfernen~~ ~~entfernen~~

$$A_{10} \quad A \rightarrow B : \sqrt{(x_B - x_A)^2 + (y_B - y_A)^2 + (z_B - z_A)^2} = \sqrt{7^2 + (-2)^2 + 3^2} = \sqrt{62} = \boxed{\sqrt{62}}$$

$$\rightarrow \sqrt{2^2 + (-2)^2 + (2)^2} = \sqrt{12} = \boxed{\sqrt{12}}$$

$$A_{10} \quad A \rightarrow \Gamma : \sqrt{(x_\Gamma - x_A)^2 + (y_\Gamma - y_A)^2 + (z_\Gamma - z_A)^2} = \sqrt{2^2 + (-2)^2 + (2)^2} = \sqrt{12}$$

$$\rightarrow \boxed{\sqrt{12} = 3.46}$$

$$A_{10} \quad A \rightarrow D : \sqrt{(x_D - x_A)^2 + (y_D - y_A)^2 + (z_D - z_A)^2} = \sqrt{(-1)^2 + (0)^2 + (3)^2} = \sqrt{10} = 3.16$$

$$A_{10} \quad B \rightarrow \Gamma : \sqrt{(x_\Gamma - x_B)^2 + (y_\Gamma - y_B)^2 + (z_\Gamma - z_B)^2} = \sqrt{(-5)^2 + (4)^2 + (0)^2} = \sqrt{41} = 6.40$$

$$A_{10} \quad \Gamma \rightarrow D : \sqrt{(x_D - x_\Gamma)^2 + (y_D - y_\Gamma)^2 + (z_D - z_\Gamma)^2} = \sqrt{(-3)^2 + (-2)^2 + (5)^2} = \sqrt{38} = 6.16$$

B) Amatööritööd on $\rightarrow 0$

A: ~~$\sqrt{7^2 + 3^2 + 3^2}$~~

B: $\sqrt{7^2 + 3^2 + 3^2} = \sqrt{22} = 4.67$

C: $\sqrt{9^2 + 1^2 + 1^2} = \sqrt{20} = 4.47$

D: $\sqrt{4^2 + 3^2 + 1^2} = \sqrt{42} = 6.48$

E: $\sqrt{1^2 + 3^2 + 6^2} = \sqrt{46} = 6.78$

D) f_{AB} $f=1$

A: $x = f \frac{x_A}{Z_A} = \frac{2}{3} = 362 \quad v = \frac{y_A - 3}{Z_A} = 1$

B: $x = f \frac{x_B}{Z_B} = \frac{9}{1} = 9 \quad v = \frac{y_B}{Z_B} = \frac{1}{1} = 1$

C: $x = f \frac{x_C}{Z_C} = \frac{4}{1} = 4 \quad v = \frac{y_C}{Z_C} = \frac{5}{1} = 5$

D: $x = f \frac{x_D}{Z_D} = \frac{1}{6} = 0.17 \quad v = \frac{y_D}{Z_D} = \frac{3}{6} = 0.5$

$$D \quad x = \frac{fx}{z} \Rightarrow z = \frac{fx}{x}$$

~~$$y = \frac{fy}{z} \Rightarrow z \cdot y = f \cdot x$$~~

$$y = \frac{fy}{z} \Rightarrow z \cdot y = f \cdot x \Rightarrow \frac{fx}{x} \cdot y = f \cdot x \Rightarrow$$

$$\Rightarrow \frac{y}{x} = \frac{y}{x}$$

für A ~~$x_A = 0.6 + \sqrt{A}$~~ $x_A = 0.6 \Rightarrow m_1 y_A = 1$

$$\frac{y}{x} = \frac{1}{0.6} \Rightarrow \frac{y}{x} = 1.67 \Rightarrow y = 1.67x \quad y$$

$$\text{für } X=2 \quad y = 1.67 \cdot 2 = 3.34 \text{ nm} \quad y = 3.34$$

$$\text{für } n \quad z \text{ in nm} \quad z = \frac{fx}{x} = \frac{2}{0.6} = 3.33$$

$$z = 3.33$$

Am gleichen Punkt E:

$$E(2, 3.33, 3.33)$$

für B ann $x_B = 9$ $y_B = 1$

$$\frac{y}{x} = \frac{9}{1} \quad y = 9x \quad \text{für } X=3 \quad y=27$$

für cosine H
 $H(3, 27, 3)$

$$\text{Für } n \quad z = \frac{fx}{x} = \frac{3}{1} = 3$$

$$\text{En område } \Gamma \quad x_1 = 4 \quad y_1 = 5$$

$$\frac{y}{x} = \frac{5}{4} \Rightarrow y = 1.25x \quad \text{då } x = 4$$

$$y = 1.25 \cdot 4 = 5 \quad \text{då } x = 5$$

$$\text{Med } n \quad 2 = f \frac{x}{x} = \frac{4}{4} = 1$$

~~En~~ En annan del av Γ

$$\theta(4, 5, 1)$$

$$\text{En annan del av } \Gamma \quad x_1 = 0.12 \quad y_1 = 0.5$$

$$\frac{y}{x} = \frac{0.5}{0.12} \Rightarrow y = 2.94x \quad \text{då } x = 6$$

$$y = 2.94 \cdot 6 = 17.64$$

$$y = 17.64$$

$$z = f \frac{x}{x} \Rightarrow z = \frac{6}{0.12} = 35.29$$

Ann annan 1

$$\theta(6, 17.64, 35.29)$$