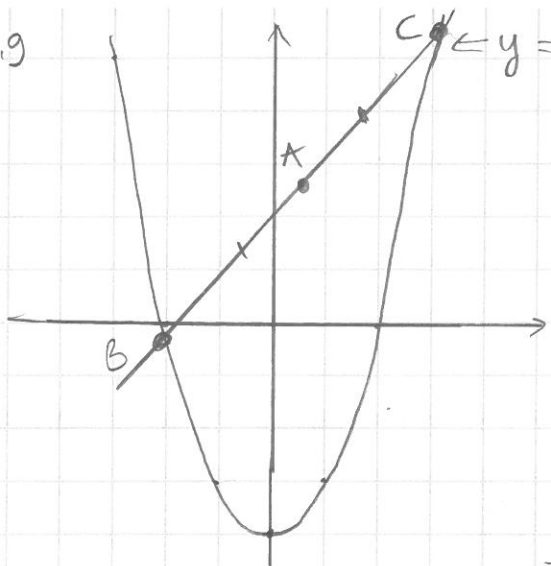


9.9



$$A = \left(\frac{1}{2}, 2\frac{1}{2}\right)$$

$$B = (b, b^2 - 4)$$

$$C = (c, c^2 - 4)$$

$$A = \left(\frac{b+c}{2}, \frac{(b^2-4)+(c^2-4)}{2}\right) = \left(\frac{1}{2}, 2\frac{1}{2}\right)$$

$$\Rightarrow \begin{cases} \frac{b+c}{2} = \frac{1}{2} & | \cdot 2 \\ \frac{b^2+c^2-8}{2} = \frac{5}{2} & | \cdot 2 \end{cases} \Rightarrow \begin{cases} b+c=1 \Rightarrow c=1-b \\ b^2+c^2=13 \end{cases}$$

$$\Rightarrow b^2 + (1-b)^2 = 13 \Rightarrow b^2 + 1 - 2b + b^2 = 13$$

$$\Rightarrow 2b^2 - 2b - 12 = 0 \Rightarrow b = \begin{cases} 3 \\ -2 \end{cases}$$

$$b = 3 : c = 1 - b = 1 - 3 = -2 \quad \leftarrow \text{same distance}$$

$$b = -2 : c = 1 - (-2) = 3$$

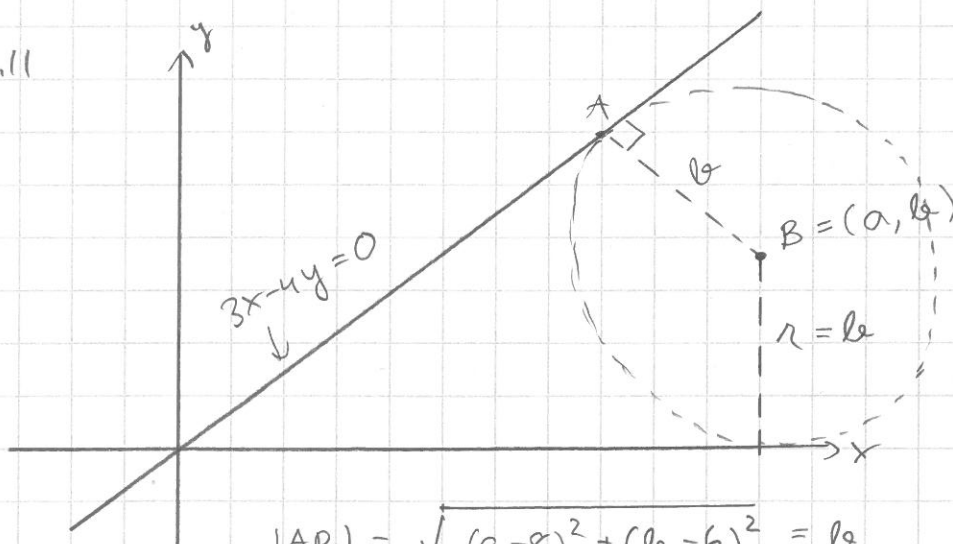
$$\Rightarrow \text{Punkte: } B = (-2, (-2)^2 - 4) = (-2, 0)$$

$$C = (3, 3^2 - 4) = (3, 5)$$

Janus pituus:

$$|BC| = \sqrt{(3 - (-2))^2 + (5 - 0)^2} = \sqrt{25 + 25} = \sqrt{50} = \sqrt{25 \cdot 2} = 5\sqrt{2}$$

9.11



$$A = (8, 6)$$

$$|AB| = \sqrt{(a-8)^2 + (b-6)^2} = b$$

$$\Rightarrow (a-8)^2 + (b-6)^2 = b^2$$

$$(1)^2 \text{ mol. quadr. } \geq 0$$

$$3x - 4y = 0 \Rightarrow y = \frac{3}{4}x \Rightarrow k_1 = \frac{3}{4}$$

$$\text{slope } AB : k_2 = \frac{\Delta y}{\Delta x} = \frac{b-6}{a-8}$$