10.1.1 Økt 7

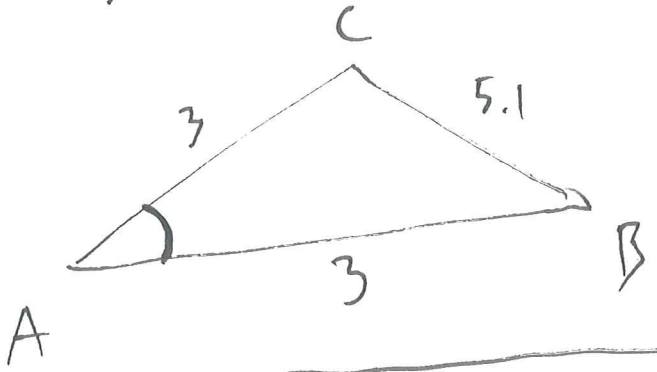
(1)

$A=(0,0,0)$ $B=(2,-1,-2)$

$$|AB| = \sqrt{(2-0)^2+(-1-0)^2+(-2-0)^2} = \sqrt{4+1+4} = 3$$

10.1.7

$A=(2,-1,-1)$ $B=(0,1,-2)$, $C=(1,-3,1)$

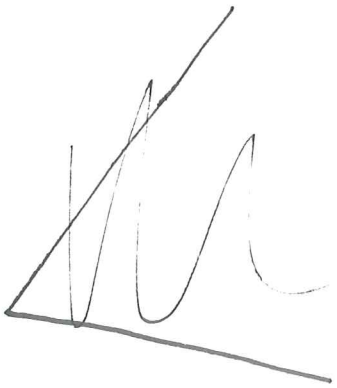


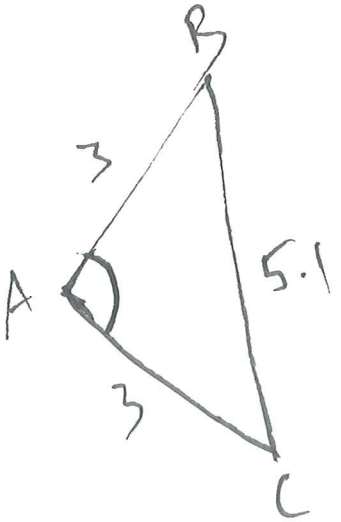
$$|AB| = \sqrt{(0-2)^2+(1-(-1))^2+(-2-(-1))^2}$$

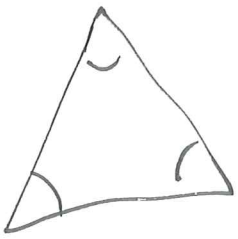
$$= \sqrt{4+4+1} = 3$$

$|AC| = 3$

$|BC| = \sqrt{26} \approx 5.1$



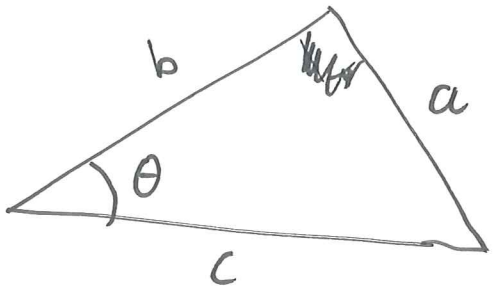




Øv + 7

(2)

$$a^2 = b^2 + c^2 - 2 \cdot b \cdot c \cdot \cos(\theta)$$



$a = \sqrt{26}$

$b = 3$

$c = 3$

$$2bc\cos\theta = b^2 + c^2 - a^2$$

$$\cos\theta = \frac{b^2 + c^2 - a^2}{2bc}$$

$$\theta = \cos^{-1}\left(\frac{b^2 + c^2 - a^2}{2bc}\right)$$

$$\theta = \cos^{-1}\left(\frac{9 + 9 - 26}{2 \cdot 3 \cdot 3}\right)$$

$$\theta = \cos^{-1}\left(-\frac{4}{9}\right)$$

$$\theta = 116.4^\circ$$

$\tan\theta = \frac{\text{mots.}}{\text{nos.}}$

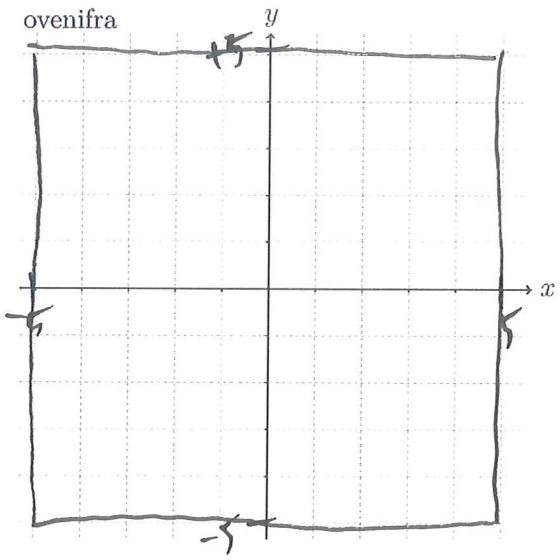
ikke relevant fordi vi ikke vet hvorvidt ABC er rettvinklet.

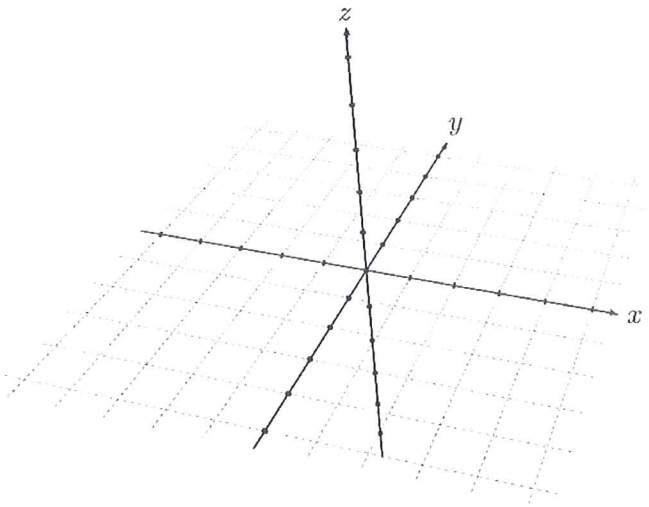
10.1.12 $z=2$

Oct 7

(3)

ovenifra





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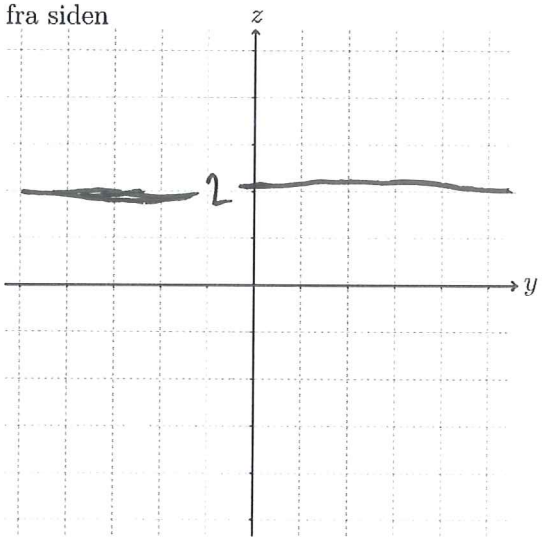

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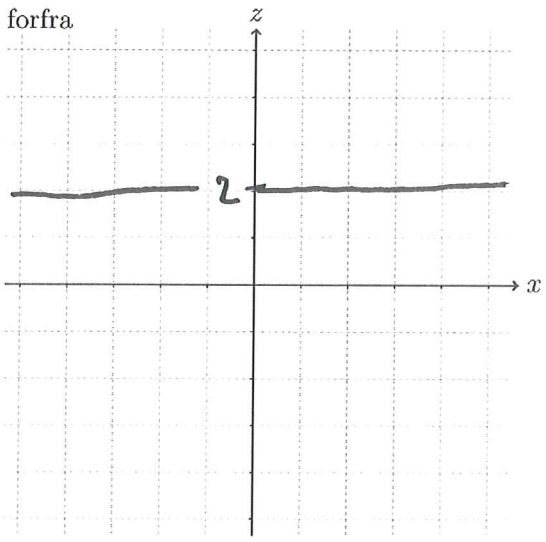
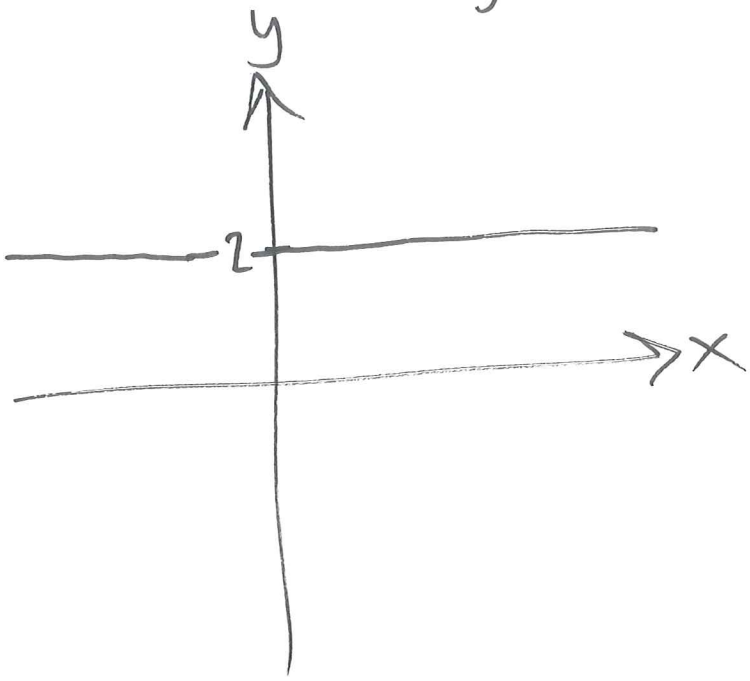


Ch 7

(4)

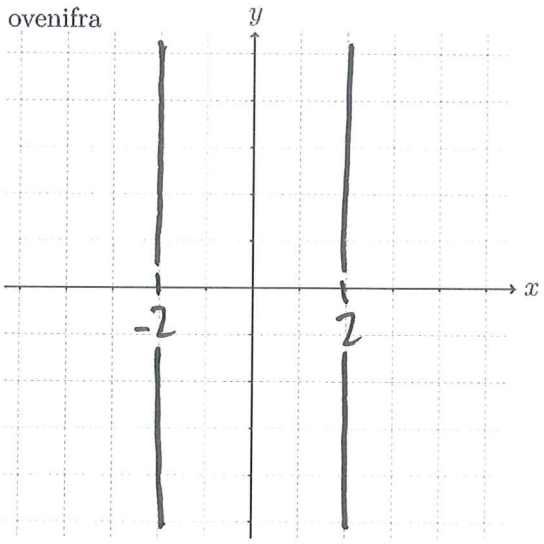
$y = 2$



10.1.20 $x^2+z^2=4$

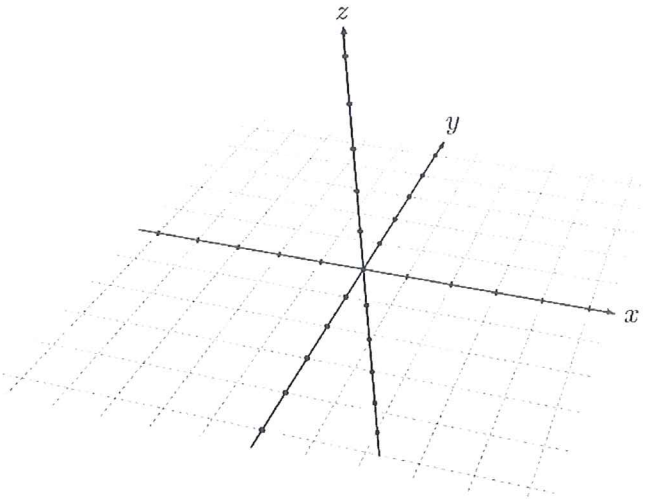
Oppg 7 (5)

ovenifra



$x^2=4$

$x=\pm 2$



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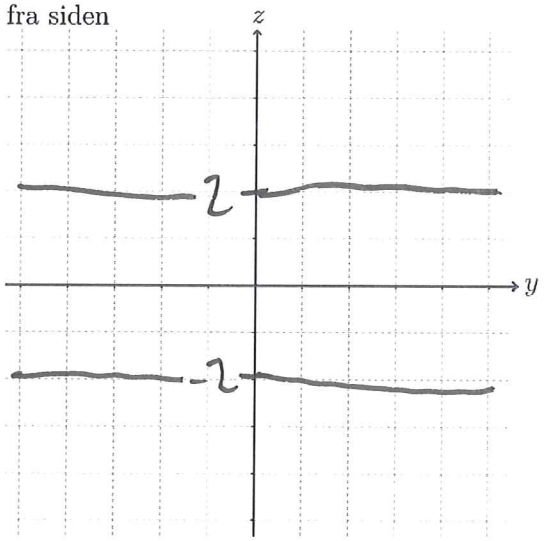

$z^2=4$

$z=\pm 2$

forfra