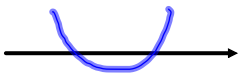
Diskriminanth

$ax^2+bx+c=0$

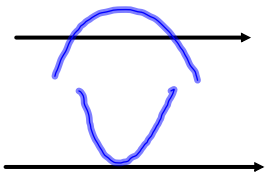
$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

$$x=\frac{-b\pm\sqrt{D}}{2a}$$

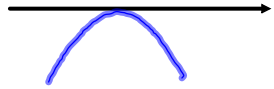
$D=b^2-4ac$

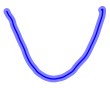


$D>0$ 2 ratkaisua



$D=0$ 1 ratkaisu



$D<0$  0 ratkaisua

Kuinka monta ratkaisua

esim. 514 c) $x^2-2x-1=0$

$a=1$
$b=-2$
$c=-1$

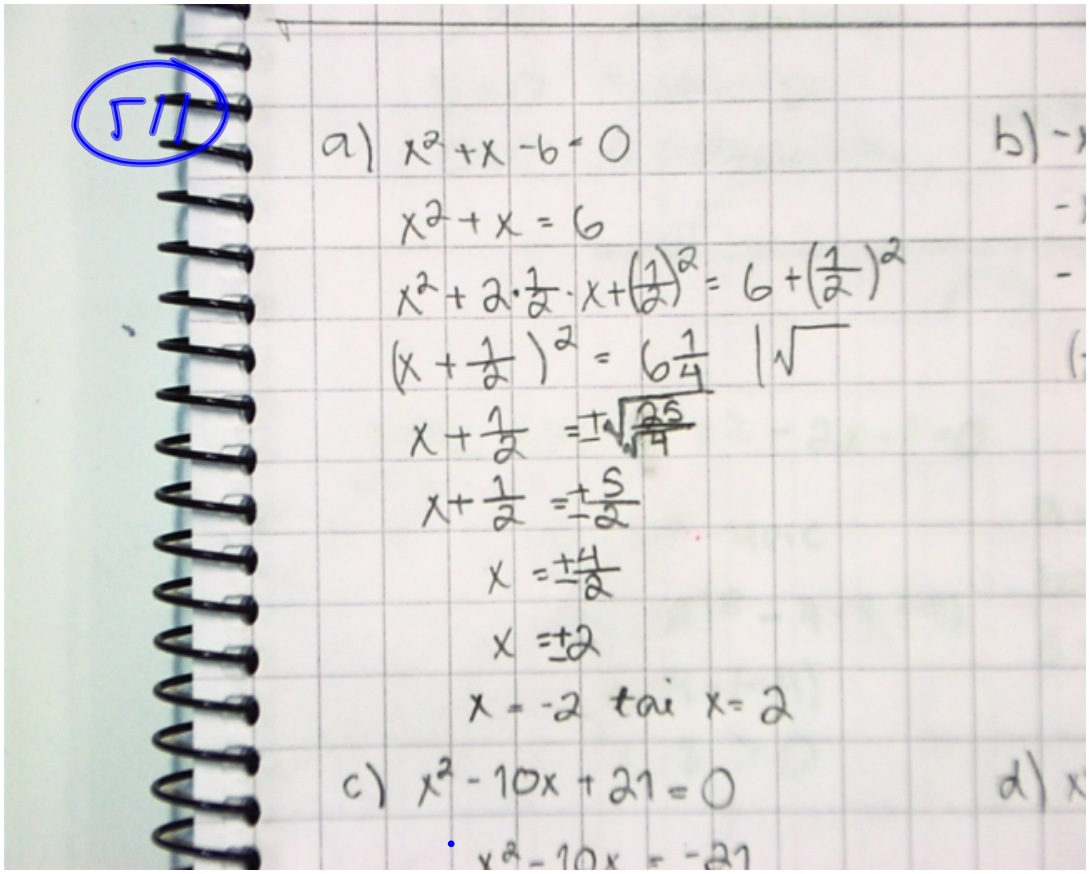
$D=b^2-4ac$

$=(-2)^2-4\cdot1\cdot(-1)$

$=8>0$

V: 2 ratk.

511 b)



571

a) $x^2 + x - 6 = 0$

$x^2 + x = 6$

$x^2 + 2 \cdot \frac{1}{2} \cdot x + \left(\frac{1}{2}\right)^2 = 6 + \left(\frac{1}{2}\right)^2$

$\left(x + \frac{1}{2}\right)^2 = 6\frac{1}{4} \quad | \sqrt{}$

$x + \frac{1}{2} = \pm\sqrt{\frac{25}{4}}$

$x + \frac{1}{2} = \pm\frac{5}{2}$

$x = \pm\frac{4}{2}$

$x = \pm 2$

$x = -2$ tai $x = 2$

c) $x^2 - 10x + 21 = 0$

$x^2 - 10x = -21$

b)

d)

+ edell.

520, 521, 524, 525, 528, 525, 532, 533, * 535