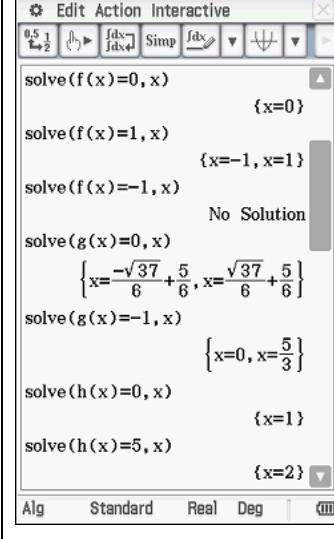
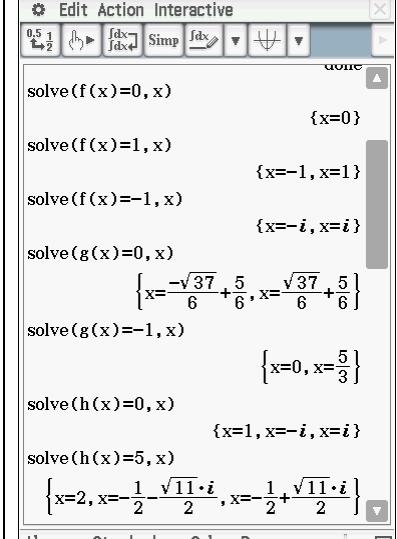


## Activity 37 Complex solutions

1.

Equation	ClassPad in Real mode	ClassPad in Complex mode
a) $f(x) = 1$	$x = 0$	$x = 0$
b) $f(x) = -1$	$x = \pm 1$	$x = \pm 1$
c) $g(x) = 0$	No solution	$x = \pm i$
d) $g(x) = -1$	$x = \frac{5 \pm \sqrt{37}}{6}$	$x = \frac{5 \pm \sqrt{37}}{6}$
e) $h(x) = 0$	$x = 1$	$x = 1, x = \pm i$
f) $h(x) = 5$	$x = 2$	$x = 2, x = -\frac{1}{2} \pm \frac{\sqrt{11}i}{2}$
	 <pre> solve(f(x)=0,x) {x=0} solve(f(x)=1,x) {x=-1,x=1} solve(f(x)=-1,x) No Solution solve(g(x)=0,x) {x=-sqrt(37)/6+5/6,x=sqrt(37)/6+5/6} solve(g(x)=-1,x) {x=0,x=5/3} solve(h(x)=0,x) {x=1} solve(h(x)=5,x) {x=2} </pre>	 <pre> solve(f(x)=0,x) {x=0} solve(f(x)=1,x) {x=-1,x=1} solve(f(x)=-1,x) {x=-i,x=i} solve(g(x)=0,x) {x=-sqrt(37)/6+5/6,x=sqrt(37)/6+5/6} solve(g(x)=-1,x) {x=0,x=5/3} solve(h(x)=0,x) {x=1,x=-i,x=i} solve(h(x)=5,x) {x=2,x=-1-sqrt(11)*i/2,x=-1+sqrt(11)*i/2} </pre>

2.

- a)  $x = \pm\sqrt{5}i$
- b)  $x = \frac{2 \pm \sqrt{14}i}{3}$