Activity 5 Algebra quiz

Aim: Substitute into algebraic expressions. Save variables

Setting up: refer to Learning Notes

1. If $a = 1.96$ complete the quiz to determine the value of k.

		Hint	Answer
a)	Find b if $b = a^2$	$1.96 \Rightarrow a$ $a^2 \Rightarrow b$ $a+2b \Rightarrow c$ $\frac{\sqrt{b}}{a} \Rightarrow d$ $10-(a+b) \Rightarrow e$	
b)	Find c if $c = a + 2b$		
c)	Find d if $d = \frac{\sqrt{b}}{a}$		
d)	Find e if $e = 10 - (a + b)$		
e)	Find f if $f = \frac{\sqrt{a}}{b}$		
f)	Find g if $g = b - \frac{ad}{f}$		
g)	Find h if $a = h - b$	$a+b \Rightarrow h$ $fg \Rightarrow i$ $\frac{i-d-2}{f}$	
h)	Find i if $f = \frac{i}{g}$		
i)	Find j if $fj + 2 = i - d$		
j)	Find k if $k = a + b + c + d + e + g + h + i + j$		

2. What would the value of k be if :

   a) $a = 6.25$?

   b) $a = 121$

Learning notes

Set up

- Tap Main $\sqrt{\alpha}$ to select the Main window

Ensure decimal answers will be displayed

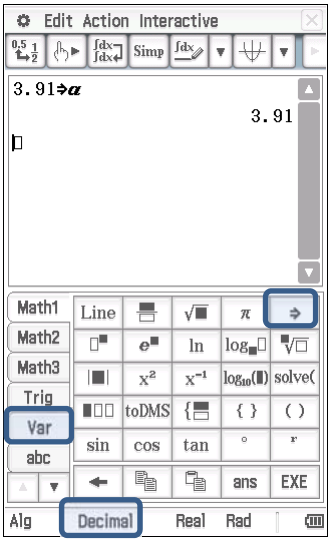
- If Standard is showing then tap to toggle to Decimal.

Clear variables

- Select [Edit | Clear All Variables] and tap OK

Store variables

- Press Keyboard
- Enter the number e.g. 3.91
- Tap ⇒
- Tap Var and tap the variable name e.g. a
- Press EXE

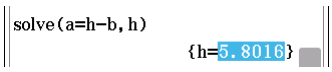


Q2 Go back the line where a is stored, edit the value and press EXE. All subsequent calculations will be recalculated with the new value.

For parts g) to i)

Solve equations

- you can use the solve command.



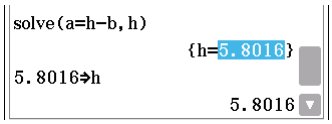
Store the result

Method 1

- rearrange the equation by hand.

Method 2

- Highlight the answer, drag into the next line and then store the value. (You will have to repeat this process for Q2)



Method 3

- The following command is more complex. GetRight extracts the right hand side of the equation and ans[1] refers to the first element in the curly braces. This will recalculate correctly for Q2.
- In the example shown
  ans is {h=5.8016}
  ans[1] is h=5.8016
  GetRight(ans[1]) is 5.8016