

# GDC guide

# Things you should be able to do

Apart from basic arithmetic you should be able to use:

- Polynomial root finder to solve polynomial equations;
- Solver to solve more complex equations;
- Tables to list elements of a sequence and compare sequences;
- Finance app to calculate investment/loan details.

# Polynomial root finder

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So to solve  $r^5 + 4 = 2r^3 - 6$ , we first move everything to one side:  
 $r^5 - 2r^3 + 10 = 0$ .

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The coefficients are 1, 2, -5, 1. (be careful with the signs!)

The solutions are 1.2851, 0.2218 and  $-3.507$ .

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The solutions are: 2, -2, 0.5 and -0.5.

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The solutions are: 4, 1.25 and 0.5.

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- Input the coefficient correctly (be careful with zeros and negative coefficients).

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If you use this method to solve an exam question you need to mention that you're using TABLE on GDC and write something like (including the values)  $a_7 > b_7$  and  $a_8 < b_8$ , so the answer is 8.



# Finances

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You will then need to input the following:

**n** Number of periods (months, quarters, years etc.)

**I%** Interest rate

**PV** Present value

**PMT** Payments

**FV** Future value

**P/Y** Payments per year

**C/Y** Compounding periods per year

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$n$  12 (3 years is 12 quarters)

$i\%$  5

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Now press F3 ( $PV$ ), to solve for the present value. The answer is 8615.09.  
Note that the GDC gives a negative answer, because we need to invest this money.

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Now press F3 (PV), to solve for the present value. The answer is 8615.09. Note that the GDC gives a negative answer, because we need to invest this money. Note also that in finance questions we round to 2 d.p.

If you have any questions or doubts email me at [T.J.Lechowski@gmail.com](mailto:T.J.Lechowski@gmail.com)