Do you know your calculator?

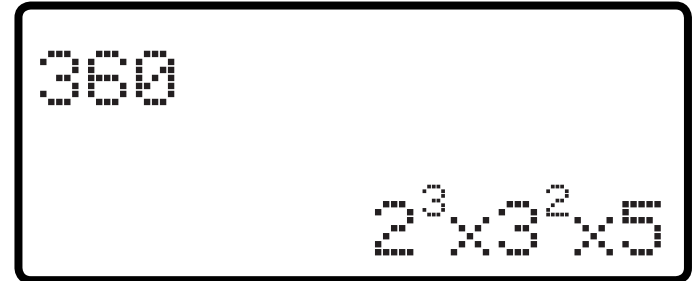## 1. Prime Factorisation

SHIFT - FACT
Use this to find the prime factors of a number.
Example - To find the prime factors of 360:

KEY SEQUENCE

360   =   [SHIFT]   [°,,,]

CALCULATOR SCREEN SHOWS

360

$2^3 \times 3^2 \times 5$

2. Using table mode

MODE 3

For most calculations, the calculator will be in Mode 1 (COMP)

Mode 3 - TABLE can be used to fill in tables, for graphs.

Please note: Ensure that you go back to MODE 1 after filling in the table

Example: Complete the table of values for

$$y = x^2 + 2x + 4$$

x	-4	-3.5	-2	-1	0	0.5	2
y							

KEY SEQUENCE

[MODE] 3	[ALPHA])	x^2 +2 [ALPHA]) +4	= Start?	-4 =	End? 2 =	Step? 0.5 =
			The prompts **Start?** and **End?** require the inputs of the smallest value in the table, and the largest (–4 and 2 in the example).			**Step?** requires the step-size for the values of x. CARE: Use the smallest step-size. The smallest step size in the table is ½ so enter 0.5.

CALCULATOR SCREEN SHOWS

	X	F(X)
1	-4	12
2	-3.5	9.25
3	-3	7

-4.

Example - The calculator gives you all y values for steps of 0.5 in x values.

The table on the exam paper shows unequal step sizes, so you must ensure that you read the correct y values from the calculator, to match the x values on the exam paper.

x	-4	-3.5	-2	-1	0	0.5	2
y	12	9.25	4	3	4	5.25	12

3. Entering mixed numbers

Example: When calculating

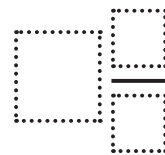$$1 \frac{1}{2} - \frac{3}{4}$$

a common error is to enter **1** then press and enter ...

[⊟] $\frac{1}{2}$

Instead, key the following sequence ...

[SHIFT]   [⊟]

You should see three boxes on the screen

KEY SEQUENCE

1 ▶ 1 ▶ 2 ▶ - ▢ 3 ▶ 4 =

CALCULATOR SCREEN SHOWS

$$1\frac{1}{2} - \frac{3}{4}$$

$$\frac{3}{4}$$

4. Cancelling fractions - Example

Express the following faction in its simplest form:

$$\frac{18}{27}$$

(This may be the last part of a question on the calculator paper.)

KEY SEQUENCE

[⊟] 18 ▶ 27 = $\frac{2}{3}$

5. Are you in the correct TRIG mode for the exam?

Marks can be lost for not being in the correct trig. mode.

QUICK CHECK:
When you key in the sequence

[SIN]   (30)

Do you see this?

sin (30)

$$\frac{1}{2}$$

YES - you are in the correct MODE

NO - you need to change the MODE:

To change the mode, key the following

[SHIFT]   [SETUP]   Option 3   3:Deg

Go back and follow the instructions for checking your calculator is in the correct mode.