Noel Baker Centre
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THE PRIME FACTOR GAME*

Category: Number (Prime Factors)
Year Level: Any (aimed mainly at lower/middle secondary)
ADD: pfact.cat, pfactgam.cat (CasioEd Website)
Author: Anthony Harradine

Description: There are two programs in this ADD. Firstly is the Prime Factor Beast. This ADD simply finds the prime factors of a number. Secondly, there is the Prime Factor Game. This ADD presents the user with a randomly generated number. They are then asked two perform two tasks, with respect to the given number:

(a) enter the number of individual prime factors, and

(b) separately enter the prime factors.

This ADD offers two levels of difficulty.

```
The prime factor game.

Beta v 1.0
Harradine - 2004.
(Press EXE to continue.)
```

Instructions: Only the Prime Factor Game will be discussed below.

```
All data in File 6
will be deleted.
1: Continue.
2: Stop now.
?
```

When the ADD begins, you will be asked to give permission to delete all the data in File 6. If you don't know what this means, chances are, you won't mind.

```
WHICH LEVEL
1: COMPETENT
2: ADVANCED?
```

The breakdown of the levels is as follows:

- Competent – numbers from 5 to 100.
- Advanced – numbers from 51 to 1000.

```
Prime factor
                45
        - Disp -
```

When asked to enter the number of *individual* prime factors, every prime number in the prime factorisation must be included.

```
Prime factor
                45
How many individual
prime factors?
3
```

For example, if the number to be prime factored is 45, the prime factoring is $3^2 \times 5$. This means there are 3 individual prime factors.

** This ADD is a Beta version and is considered still under construction.*