[2.23] Try comDenom() for faster partial factoring

It is not be obvious that *comDenom()* can be used for factoring, but this is mentioned in the *TI-89/TI-92+ User's Guide,* in the *Alphabetical Listing of Operations* section. As an example, consider the expression

$$6 \cdot x^5 - 8 \cdot x^4 + 2 \cdot x^3 \qquad\qquad \text{which can be factored as} \qquad 2 \cdot x^3 \cdot (x-1) \cdot (3x-1)$$

To partially factor an expression with *comDenom()*, include an argument variable which is not in the expression. I use *y* in this example:

```
comDenom(6*x^5-8*x^4+2*x^3,y)
```

which, in AUTO and EXACT modes, returns

$$2 \cdot x^3 \cdot \left(3 \cdot x^2 - 4 \cdot x + 1\right)$$

In APPROX mode, a different but equivalent expression is returned:

$$6 \cdot x^3 \cdot \left(x^2 - 1.333 \cdot x + 0.333\right)$$

The *User's Guide* suggests defining a function to accomplish this:

```
comDenom(expr,exprvar)→comden(expr)
```

and adds:

> "Even when there is no denominator, the *comden* function is often a fast way to achieve partial factorization if *factor()* is too slow or if it exhausts memory.
>
> "Hint: Enter this *comden()* function definition and routinely try it as an alternative to *comDenom()* and *factor()*."