

I am the very model of a modern major general

Gilbert and Sullivan

1 equations

$3 * x = y$
 $\int f(x) dx$
 a^2
 $a^{3*n/2+1}$

 let v be the velocity of an unlaiden swallow

 the n^{th} term of this expansion is zero
 $sum 0^l$
 \sqrt{x}
 $\frac{n}{d}$
 $\frac{n}{d}$

2 list

list1:

1. one: $y = x$
2. two: $y = x^2$
3. three: $y = x^3$
4. four: $y = x^4$

3 align

$$\sin(x + \frac{\pi}{2}) = \sin x \cos \frac{\pi}{2} + \cos x \sin \frac{\pi}{2} \tag{1}$$

$$= \cos x \tag{2}$$

4 align list

list2:

one : $y = x$
two : $y = x^2$
three : $y = x^3$
four : $y = x^4$

5 I am the very model of a modern Major-General

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I am the very model of a modern Major-General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse.
I'm very good at integral and differential calculus;
I know the scientific names of beings animalculous:
In short, in matters vegetable, animal, and mineral,
I am the very model of a modern Major-General.
I know our mythic history, King Arthur's and Sir Caradoc's;
I answer hard acrostics, I've a pretty taste for paradox,
I quote in elegiacs all the crimes of Heliogabalus,
In conics I can floor peculiarities parabolous;
I can tell undoubted Raphaels from Gerard Dows and Zoffanies,
I know the croaking chorus from The Frogs of Aristophanes!
Then I can hum a fugue of which I've heard the music's din afore,
And whistle all the airs from that infernal nonsense Pinafore.
Then I can write a washing bill in Babylonian cuneiform,
And tell you ev'ry detail of Caractacus's uniform:
In short, in matters vegetable, animal, and mineral,
I am the very model of a modern Major-General.
In fact, when I know what is meant by "mamelon" and "ravelin",
When I can tell at sight a Mauser rifle from a Javelin,
When such affairs as sorties and surprises I'm more wary at,
And when I know precisely what is meant by "commissariat",
When I have learnt what progress has been made in modern gunnery,
When I know more of tactics than a novice in a nunnery
In short, when I've a smattering of elemental strategy

You'll say a better Major-General has never sat a gee.
For my military knowledge, though I'm plucky and adventury,
Has only been brought down to the beginning of the century;
But still, in matters vegetable, animal, and mineral,
I am the very model of a modern Major-General.