

The

PARROT

and the

FERRET

by Kristen Clarno and
Jenna Menner

Mr. Parrot's favorite grandma
Lived all the way in Alabama.



She called one day to ask a visit
"Ride the train from Bleck to Gizzit!"

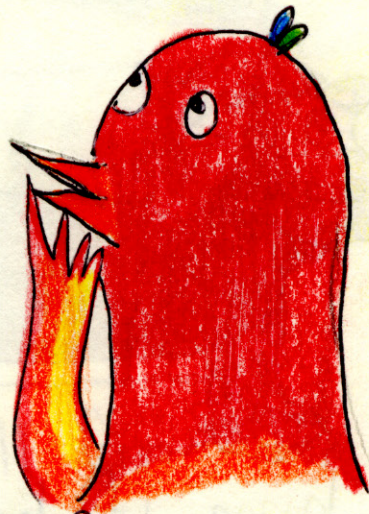


The train that day was sadly broken
And would not accept his visit token.



So to the market travelled he
To find a ferret, cheap or free.

He found a ferret up for sale
It cost one catfish and a pail.



"How odd", thought he, for such low price
would he be faster than a team
of mice?

"He'll take you there" the seller said,
"But his body's small, and so's his head."



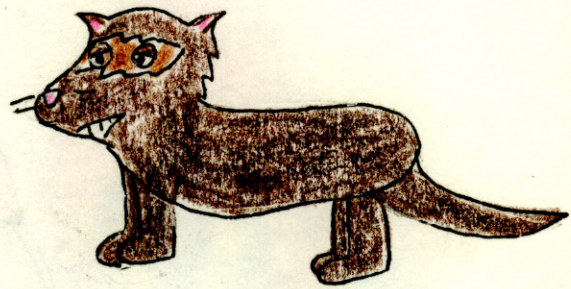
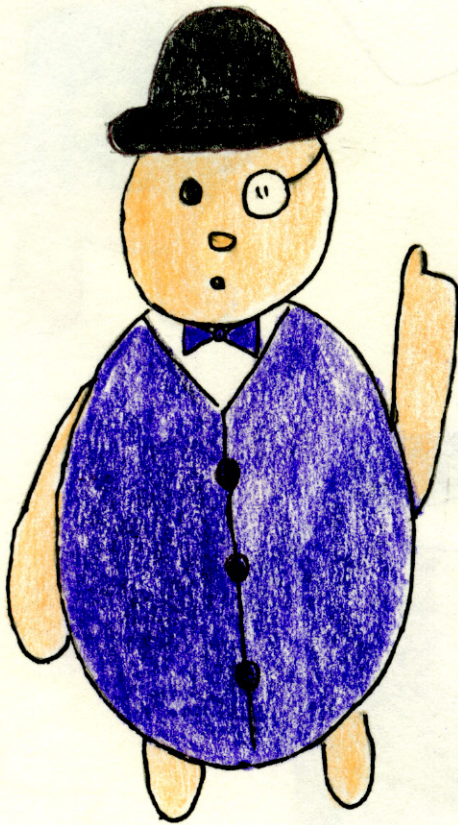
"I'll buy him if he's 30 shleise
Smaller than that, I'll buy something else."

"Let me find a Mr. Luss,
My friend who's skilled in calculus"



"Its volume he will find for you
By submerging him in Elmer's glue!"

The ferret said "now don't do that!"
And slunk away, his tail flat.



But Malk U. Luss had then arrived
"A better solution can be derived!"

"Now then," said Luss, "We want to know
If he's too small and will be slow



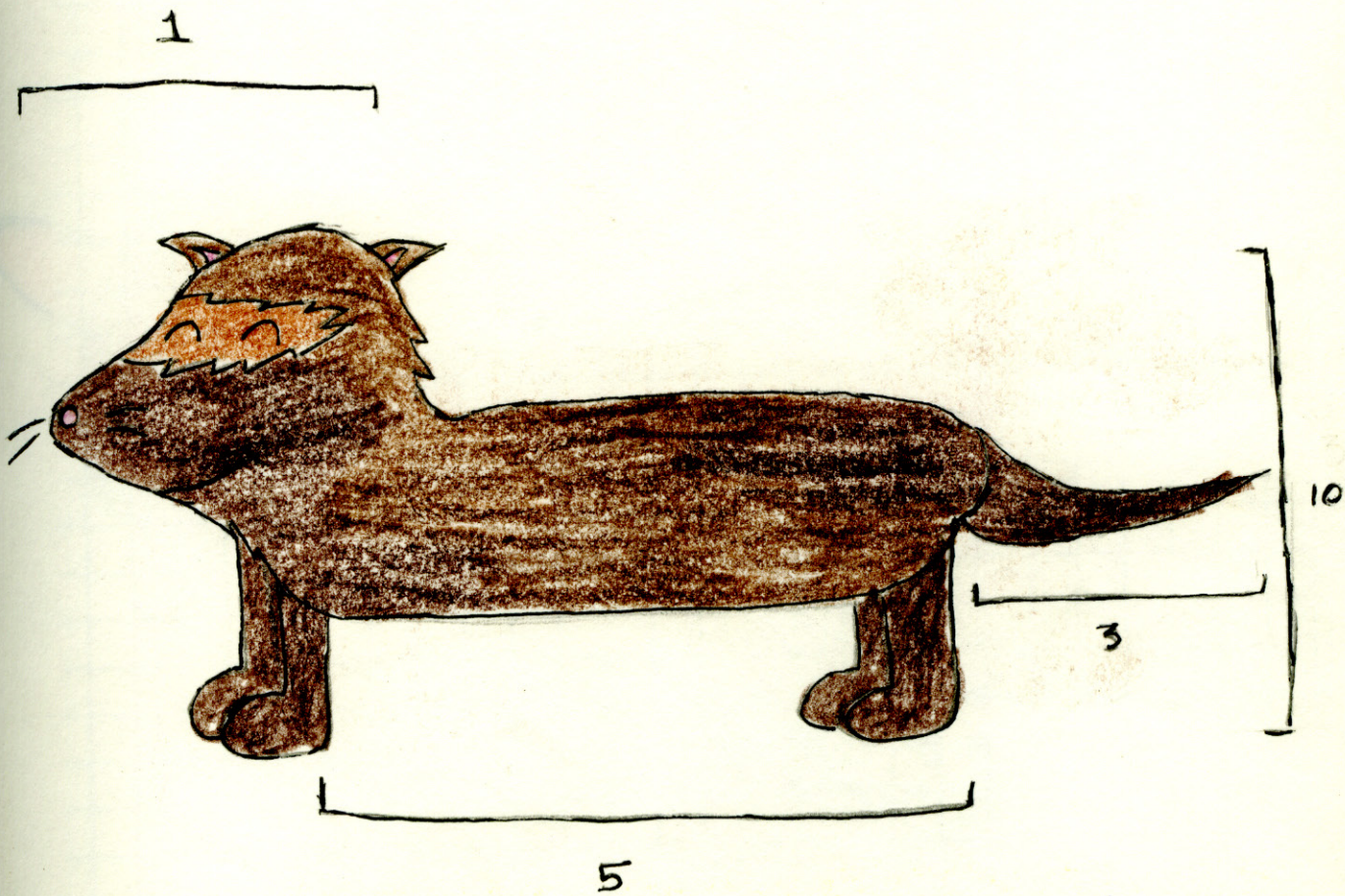
Or if, of course, he's big enough
And will run fast, be rough, and tough."

"First you find the ferret's endpoints
Measuring nose to tail joints."



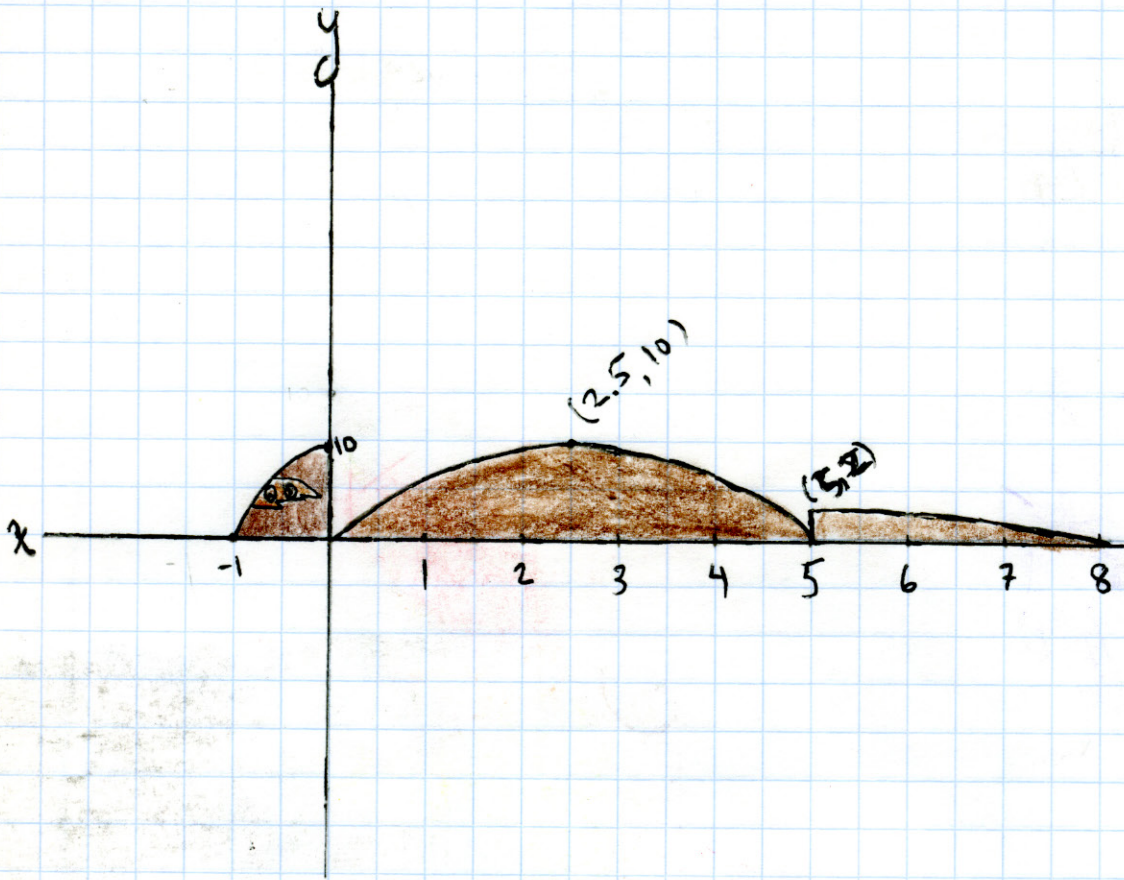
The parrot measured every inch.
With his yardstick it was a cinch.

He found his head was one kerbleck
His body measured five.



His tail, for good measure, three,
His height was ten kermive.

"So first things first," continued he,
"Some mathy magic, known but to me."



I'll fit these points to parabolas
By using endpoints and maxima."

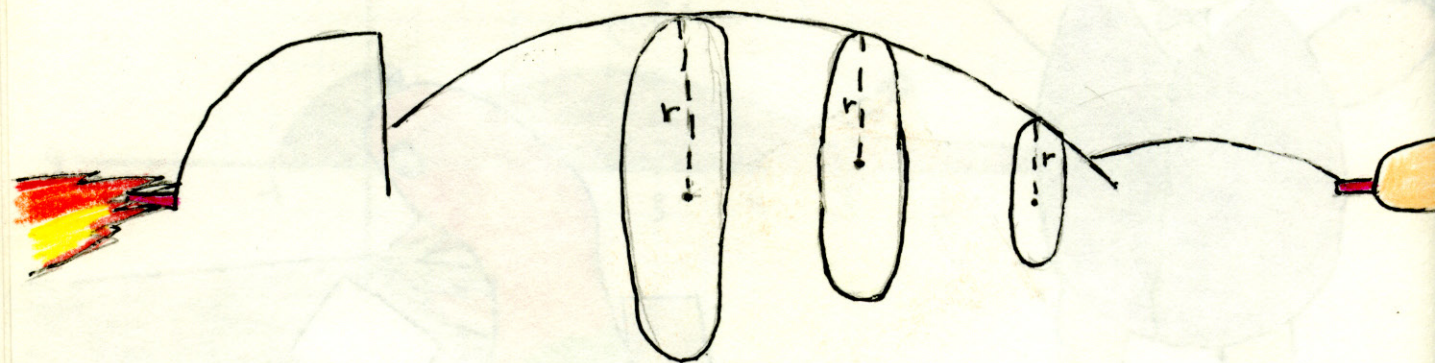
Soon he'd written three equations
And presented them ~~in~~ with grand occasion.

$$y = \begin{cases} 10(1-x^2) & -1 < x < 0 \text{ (head)} \\ 1.6x(5-x) & 0 < x < 5 \text{ (body)} \\ \frac{2}{9}(x-8)(2-x) & 5 < x < 8 \text{ (tail)} \end{cases}$$



"Now draw a picture," Luss insisted,
Which the parrot did, though he resisted.

"Here's half the ferret above the line
You rotate your end and I'll rotate mine."



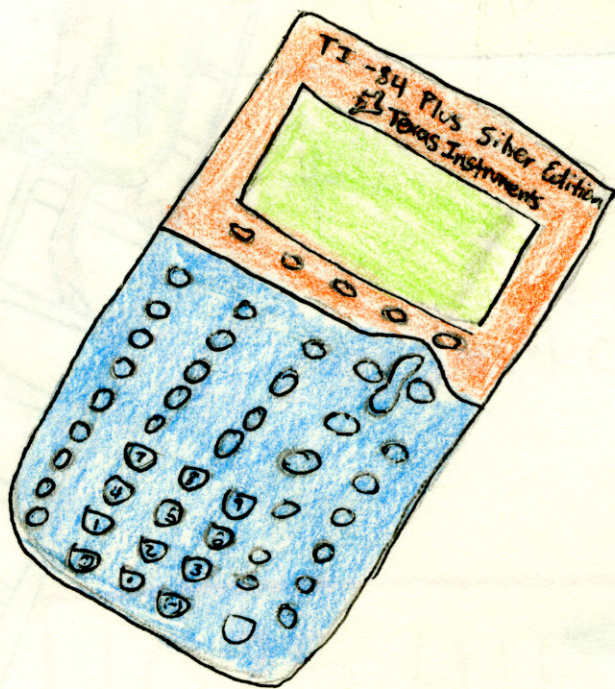
$$A = \pi r^2$$

Around in a circle, Area = πr^2

"R" is represented by the equations I
shared."

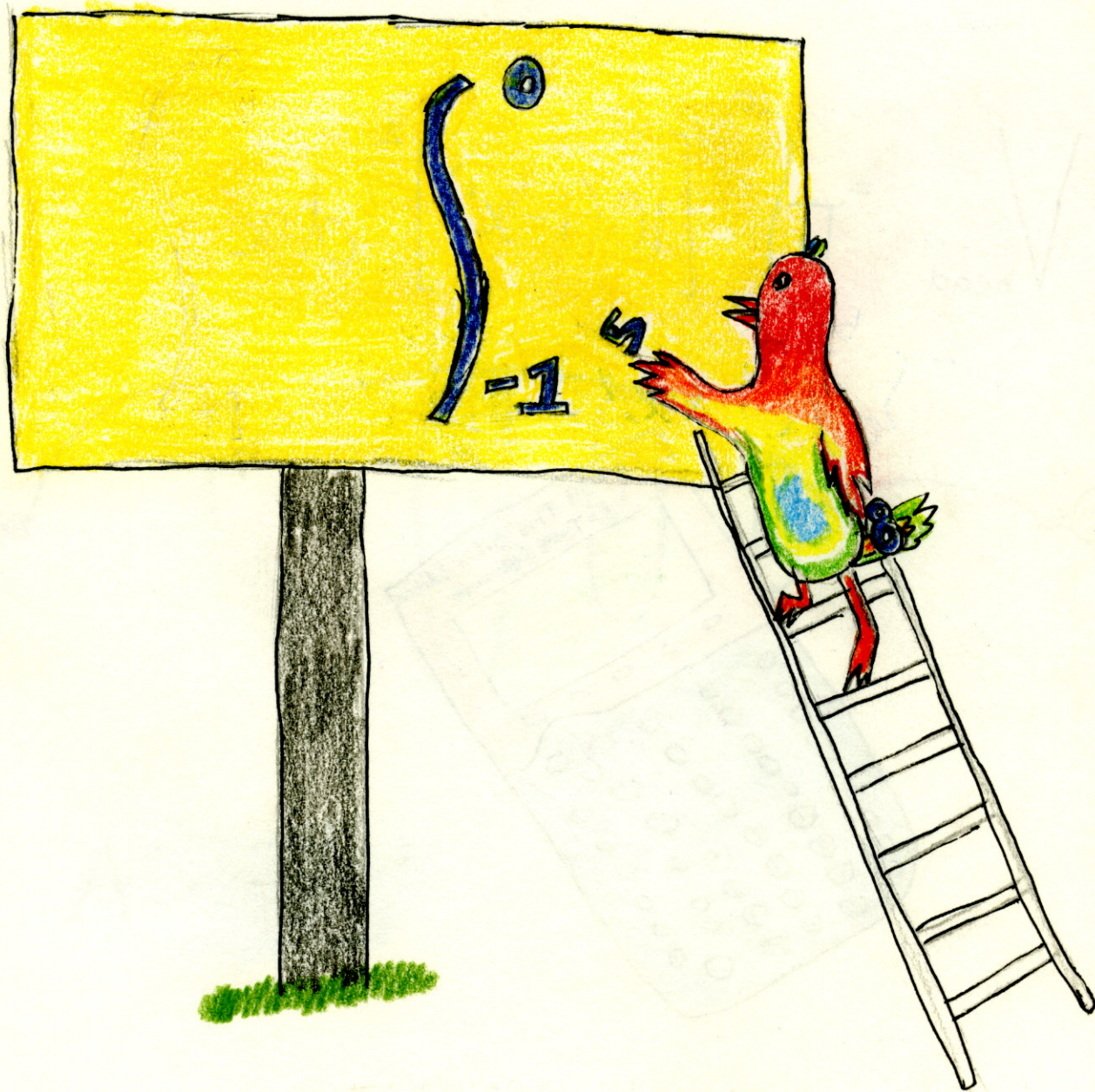
"Here's the head, integral from minus one to zero
Quantity of $10-10x^2$, squared, little hero.

$$V_{\text{head}} = \pi \int_{-1}^0 [10(1-x^2)]^2 dx$$



Don't forget to write dx and multiply by π
Then do it with your calculator or your
brain will fry."

"The same thing goes for body and tail
But change the bounds or it will fail."



And "r", respectively, to $8 - 1.6x$, times x
And $\frac{2}{9}$ ths of $(x - 8)$ times $(2 - x)$. "

"Now add them all together,"
Said the wise sir Malk U. Luss.

$$\pi \int_{-1}^0 [10(1-x^2)]^2 dx$$

+

$$\pi \int_0^5 [1.6x(5-x)]^2 dx$$

+

$$\pi \int_5^8 \left[\frac{2}{9}(x-8)(2-x) \right]^2 dx$$

=

$$\boxed{1025.4158}$$

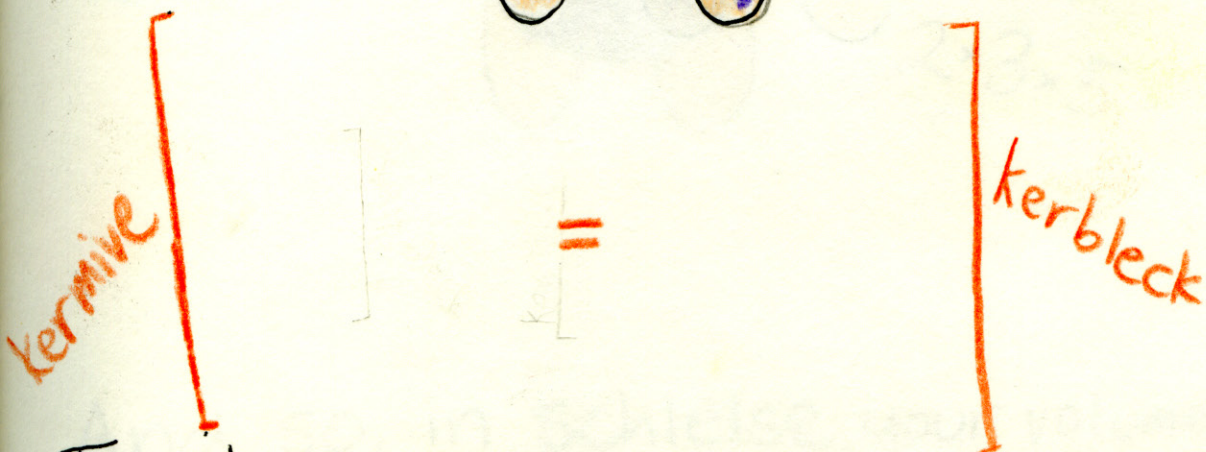
"That is the ferret's volume,
Using only calculus."

"1025" said Parrot,
"and with many decimals after."



"But that's too big," he said, Confused
And Luss burst out in laughter.

"To find his length, you used kerblecks
And his height was in kermives.



The two of them are equivalent,
and give me purple hives."

"But volume is usually found in schlelse,
And not in kerblecks cubed."

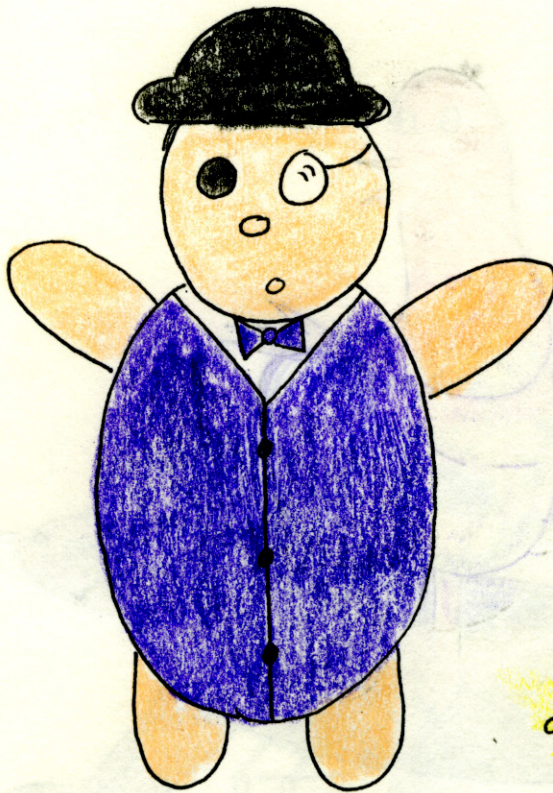


You must divide by 32
Or use my shortcut if you're shrewd."

"32 squared is 1024,
Which is less than 1025.

$$32^2 = 1024$$

$$1024 < 1025$$



$$V > 30$$

$$2 \times 3 \times 5 = 30$$

And so, in schlelse, your volume's more
than two times three times five."

"That's 30" Parrot said,

"And I'll buy him right away."



"I'm leaving now to go to Gramma's
For a lovely stay!"



BY :

R. K. R. K.
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