Life of Fred

Edgewood

Stanley F. Schmidt, Ph.D.

Polka Dot Publishing

A Note Before We Begin the Fifth Book in the Series

Life of Fred: Edgewood. You may be wondering, what's Edgewood?

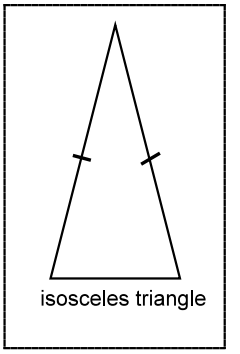
Thinking of *Life of Fred: Apples*, you might wonder if Edgewood is some kind of tree. It isn't.

Thinking of *Life of Fred: Butterflies, Life of Fred: Cats,* and *Life of Fred: Dogs,* you might suppose that Edgewood is some kind of insect or animal. It isn't.

Edgewood is a place. Some readers (99%) might never have heard of Edgewood, Kentucky.

WHAT IS EDUCATION ALL ABOUT?

Years ago, when I was teaching a geometry class in high school, I drew an isosceles triangle on the board. (*Isosceles is* pronounced eye-SAUCE-a-lees.)



One student raised his hand and objected, "Mr. Schmidt, we haven't had isosceles triangles before."

I told him, "It's okay. It's something new."

He evidently didn't like the idea of learning new things. By the tenth grade, he figured that the rest of his life should just be a review of the things he already knew.

Education is new stuff.

Entertainment is ❖ hearing another rock band,
❖ watching another soap opera episode, or
❖ reading another murder mystery.

Of course, there's no law that says that learning can't be both. It is my hope that this book is both.

MATHEMATICS AND FUN?
YES!

It depends so much on how it is taught. I majored in math when I was a student at the university. I got a C in some of the math classes where the teaching was poor.

It's possible to make almost *any subject* distasteful.

Let's do **a little playing** and see how we could mess up the teaching of . . .

music For a list of 213 symphonies, you are required to memorize the composer's name, the date of composition, the number of movements, and the key signature. The test will be next Monday. (We choose Monday to ruin your weekend.)

art For a list of 213 paintings, etc.

baseball For the 213 games that the Edgewood ballplayers played from 1996 to 1999, you are required to memorize the final scores of each of those games, and the batting order. The test will be next Monday.

german Here is your vocabulary list of 213 words.

makaber = ghoulish
der Galgen = gibbet
denkwürdig = memorable
das Verhältnis = ratio
mit hängenden Schultern stehen = to slouch

The test will be on Monday.

pizza (This subject was hard to make boring. It took me several minutes to figure out how to make the teaching of pizza anything but delightful.)

Here is a list of some cheeses that begin with the letter G: Gabriel, Galette du Paludier, Galette Lyonnaise, Galloway Goat's Milk Gems, Gammelost, Gaperon a l'Ail, Garrotxa, Gastanberra, Geitost, Gippsland Blue, Gjetost, Gloucester, Golden Cross, Gorgonzola, Gornyaltajski, Gouda, Goutu, Gowrie, Grabetto, Graddost, Grafton Village Cheddar, Grana Padano, Grand Vatel, Grataron d' Areches, Gratte-Paille, Graviera, Greuilh, Greve, Gris de Lille, Gruyere, Gubbeen, and Guerbigny.

For each cheese, write a 250-word report that details how that cheese has been used in pizzas, its place(s) of manufacture, and current prices in major cites around the world.

On the other hand, learning is inherently fun. People love to find out new things. Some people will spend an hour each day watching or reading the news. Or watching quiz shows on television.

HOW TO LEARN FROM THIS BOOK

Please have a pencil and paper available. After all, this is a math book!

My daughter Jill

Write out the answers to each Your Turn to Play before turning the page and seeing my answers. Don't just read the questions and look at the answers. Not much learning happens when you take that shortcut.

CALCULATORS?

Not now. There will be plenty of time later (when you hit Pre-Algebra). Right now in arithmetic, our job is to learn the addition and multiplication facts by heart.

With my best wishes
for your adventures with Fred,
Stan

Contents

Chapter 1 Wednesday Morning. 13
when telephones brush your teeth
concurrent lines
squares, rectangles, parallelograms, etc.
six billion (6,000,000,000)
ordinal and cardinal numbers

Chapter 2 Meeting Troubles. 19
difficulties when jogging
obeying road signs
evergreen and deciduous trees
rhombus
parallel lines

Chapter 3 Facing Your Fears. 25
winter weather in Kansas and warmth in Ecuador
definition of *function*
constant functions

Chapter 4 Where's Edgewood?. 31
Red Sea, Tripoli, Eritrea, Ireland, Scotland on a map
"Zebra in Thought" by Kingie
median averages
trapezoids
"carrying the one" in addition

Chapter 5 On the Bus. 37
getting exactly what we deserve
Kansas, Missouri, and Kentucky (heading east)
cardinality of a set
writing numerals in words
8609262942055 – 8609262942055 = 0

Chapter 6 Fame.. 43
being famous is sometimes a big bother
solving $2^x = 5$
bar graphs

Chapter 7 Reading on the Bus. 49
bar graph of camels eaten
metamathematics
math poetry to learn addition
finding a rhyme for *seventeen*
trillion
couplets
strait doesn't mean *straight*

Chapter 8 Bus Stop. 55
words for a tombstone
only time in the history of the world
if Fred were a writer
1,000 > 700

Chapter 9 In Missouri. 61
writing a biography
x < $1
the four emotions
what can cause you not to think straight
right angles

Chapter 10 A View from the Bus. 67
adding two-digit and three-digit numbers
laws in different states
a Tyrannosaurus Rex was not part of the scenery
6% in pictures

Chapter 11 A Glass of Polka Dots. 73
difference between polka dots and a bunch of dots
mathematicians play
finding patterns
matrix—rows and columns
four sentence patterns
one number, seven digits

Chapter 12 Sharing. 79
pronouns
Fyodor Mikhaylovich Dostoyevsky
half hour and quarter hour

Chapter 13 Flying. 85
why you should fasten your seat belt
mistakes—small, medium, and big
jogging 5 miles per hour for 2 hours

Chapter 14 Food and Warmth. 91
half dozen—computed three ways
9,000 calories among 9 people
gibbous moons

Chapter 15 Errors. 97
two kinds of errors—Categories One and Two
constellations and asterisms
gun safety
four signs of hypothermia
voluntary and involuntary actions
International Date Line

Chapter 16 Warm. 103
treating hypothermia
bath tub toys
family plays the Addition Game after dinner

Chapter 17 A Family. 109
the flickering blue parent that offers no hugs
the Guess-a-Function game

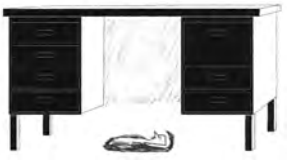
Chapter 18 To Edgewood. 115
a moose with three feet
one percent
why it's called Turkeyfoot Middle School
one way to feel lonely
north and south on a map

Chapter 19 To KITTENS. 121
what it means to matriculate
counting by fives

Index. 125

Chapter One
Wednesday Morning

Fred loved the early morning. It was one of his seven favorite parts of the day. Today was the 1855th day of his life.



The sky was beginning to get light. Fred quietly got out of his sleeping bag and stood up. He thought of the day that he would be tall enough to bump his head on the underside of his desk. But today wasn't that day. Fred was much shorter than most five-year-olds.

He walked quietly to the window. He didn't want to wake his doll Kingie. The room smelled a bit because of the dogs that had been there. Opening the window, he let in some cool morning air.*

From the third-story window of the math building, Fred could look out over the KITTENS campus. In the early morning light, the trees were gray-green.

---

* For English majors: You don't write: *Opening the window, some cool air flowed in*, because that would mean that the cool air opened the window.

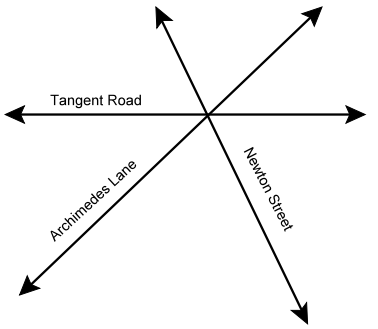
You don't write: *While brushing my teeth, the phone rang.* That says that the phone was brushing your teeth.

He put on a T-shirt, jogging shorts, socks, and running shoes and headed out the door. He walked quickly down the hallway past the nine vending machines (four on one side and five on the other), down two flights of stairs, and out into the semi-darkness of a February morning in Kansas.

Fred jogged through the campus. He passed the campus tennis courts and dreamed of the day he would be big enough to swing a tennis racquet.

He passed the university chapel where he attends Sunday school with the children of other faculty members.

When he got to the place where Tangent Road, Archimedes Lane, and Newton Street all met, he had to decide which direction to head.



Lines are **concurrent** if they all meet at the same point.

Fred decided to head to the right (east) on Tangent Road. It was long and straight. He was warmed up by now and changed from jogging to running.

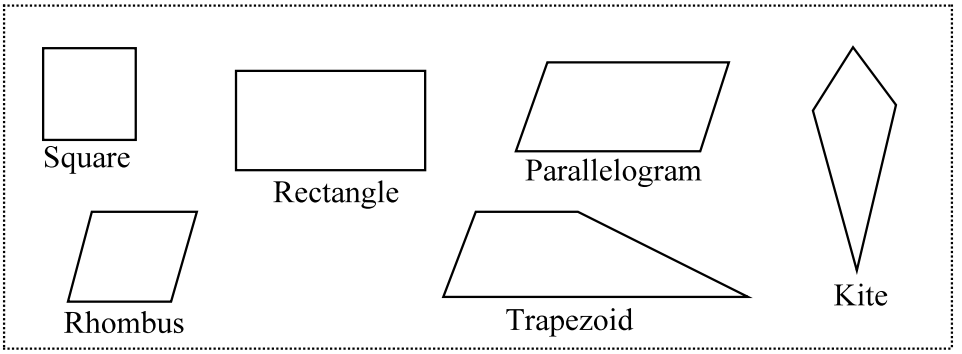
He felt the joy of being alive. As he ran the miles down Tangent Road, he let his thoughts

just drift. It was a little like dreaming while you are awake.

❁❁❁❁❁ He thought of the Wizard of Oz play he had been in when he was in kindergarten.

❁❁❁❁❁ He thought of the kitty that he had owned on Monday.

❁❁❁❁❁ He thought of his geometry class and how he would present all the quadrilaterals (four-sided figures) in class today:



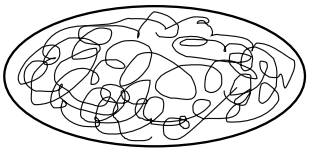
❁❁❁❁❁ When he saw the trees on Tangent Road, he thought of lines from a poem he had memorized:

What can nestlings do
In the nightly dew?
Sleep beneath their mother's wing
Till day breaks anew.

If in field or tree
There might only be
Such a warm soft sleeping-place
Found for me! *

* From Christina Rossetti's "A Chill."

❁❁❁❁❁ He thought that none of those quadrilaterals would make "a warm soft sleeping-place." They were too pointy. Instead, a nice ellipse made out of silk filled with cotton balls would be a nice place to snuggle.



Fred liked to run east on Tangent Road. He could see the dawn of the new day. This was his new day but he was willing to share it with the seven billion others on the planet. (7,000,000,000. Nine zeros.)

Fred liked the idea of sharing. He sang out a happy "Good Morning" to each animal or plant that he passed along the road:

Good morning Ant!

Good morning Butterfly!

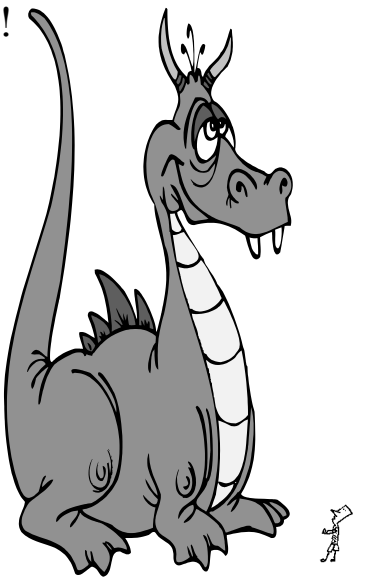
Good morning Carrot!

Good morning Dove!

Good morning Eagle!

Good morning Frog!

Good morning Giant, long-tailed, big-toothed, two-horned monster.



Please take out a piece of paper and write down the answers. Then turn the page and compare your answers to mine.

You will learn a lot more by writing down your thoughts than just reading the questions and then looking at the answers.

Please.

Your Turn to Play

1. Just for fun . . .

Fred was creating a whole alphabet using animals or plants. He started with: ant, butterfly, carrot, dove, eagle, frog.

Instead of Giant, long-tailed, big-toothed, two-horned monster, he might have said hello to a geranium or a goldfish or a groundhog.

Finish his list, starting with a plant or animal starting with H and going all the way to Z.

You may need a little help when you get to U and X. The umbrella bird can be found in South America.

There is a frog found in the streams of southern Africa called a xenopus. Pronounced ZEN-neh-pess.

2. This is the 1855th day of Fred's life. Ordinal numbers are numbers such as first, second, and 1855th.

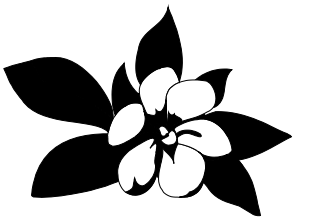
Fred is 1855 days old. What are numbers such as one, two, and 1855 called?

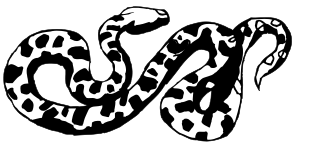
.....ANSWERS .....

1. Your answers will probably be different than mine. Here is my list of plants or animals from H to Z:

Hippo, hyacinth, hog
Ice plant, iris, ibex
Jasmine, jaguar, jerboa
Kangaroo, koala
Lotus, lion, leopard, laurel
Magnolia, mouse, moose
Orange, otter, ox
Panther, poppy, petunia
Quail, quince
Rose, rat, racoon, rhino
Sunflower, snail, snake
Turtle, tulip, tangerine
Umbrella bird
Violets, viper
Walnut, walrus, weasel
Xenopus
Yak, yucca
Zebra, zinnia

jerboa


magnolia


viper

2. Numbers used in counting are called cardinal numbers.

The cardinal number associated with {A, ✻, ✪} is 3. The cardinality of { } is 0.

Index

Addition Game. 105-108
all right vs. alright. 111
bar graph. . . . 47-49, 89, 90, 118
being famous. 45
Big Dipper asterism. 98
billion. 16, 64
biography. 61
birdie rule. 46
busted vs. broken. 91
cardinal numbers. . . . 18, 36, 47, 62
cardinality. . . . 18, 23, 39, 69, 119
carry the one. 36, 67
cheeses that begin with the letter G. 8
Christina Rossetti's "A Chill" 15
Cincinnati–Northern Kentucky International Airport 121
commutative law of addition 101
concurrent lines. 14, 47
couplet 53, 54, 65
crossing a state line. 68
deciduous trees. 22
declaratives. 77
digits vs. numbers. . . . 78, 89, 96
east 38, 116
Egypt 31
ellipse. 16
England. 31
Eritrea. 29, 31
evergreen trees. 22
exclamations. 77
facing something you don't want to do. 25
flickering blue parent. 112
four emotions. 64
four kinds of sentences. . . . 76, 77
Fred's name in Russian. 81
functions 28, 114
constant function. 30
Fyodor Mikhaylovich Dostoyevsky. 79
gibbous moons. 94
glass filled with polka dots. . 70, 71, 73
greater than >. 53, 59
guess-a-function. . . . 29, 113, 114
gun safety. 98
half an hour. 83, 84
half dozen. 93
hypothermia. 99, 104
imperatives. 77
International Date Line. . . . 102
interrogatives. 77
involuntary action. 101
Ireland 31
isosceles triangles. 7
its vs. it's. 80
kite. 15
knowledge errors (two kinds) 97, 98
leaven 52
less than <. 63, 65
logarithms 46
Lorentz contraction. 102

Math Poems for Kids. 51, 52
matrix. 75
median average. . 35, 36, 59, 117
million 96
mistakes (three kinds). . . . 87, 88
moose that had three feet. . . . 115
National Recovery Act. 25
new moons. 94
north 116, 120
only time in the history of the world. 57
ordinal numbers. 17, 62
Orion constellation. 98
parallel lines. 23
parallelograms. 15, 73, 74
percent (as a picture). . . . 71, 72, 77, 78, 89, 90, 117
polka dots (definition). 73
pronouns. 79, 80
quadrilaterals. 15
quarter after four. 91
quarter of an hour. 83
rectangles. 15
Red Sea. 31
rhombus. 15, 29, 59, 65, 71
right angles. 24, 65
Row of Practice. . 30, 42, 66, 72, 108
rows and columns. 75
Scotland 31
south 119
squares. 15, 35, 36, 59, 71
state income tax rates. 68, 69
strait vs. straight. 54
trapezoid.. 15, 23, 24, 35, 36, 65, 71
trillion. 41, 53
Tripoli 31
Turkeyfoot Middle School. . . 118
voluntary action. 100, 101
west. 124
what mathematicians do. 73
why fastening your seat belt is important. 85