# **Introduction to Algorithms, Third Edition**

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#### The Professor Jokes

Are you wondering what is the significance of the professor names sprinkled throughout *Introduction to Algorithms*, Third Edition? They are all bad jokes and puns related to the topic at hand. Here's a handy guide that explains them all.

## Page 97, Professor Caesar

Julius Caesar employed the strategy of divide-and-conquer to great effect in the Gallic Wars.

# Page 109, Professor Diogenes

Diogenes of Sinope went about ancient Greece in search of an honest man. The problem is about searching for an ``honest" VLSI chip.

# Page 128, Professor Marceau

This one is a horrible pun. The question is about how to per*mute*. Marcel Marceau is a famous mime. That is, he is *mute*. Sorry about that.

# Page 128, Professor Kelp

Julius Kelp is the Nutty Professor, as played by Jerry Lewis in the original film of the same name. Professor Kelp has discovered a formula that changes his identity. The exercise is about how to permute in which the identity permutation cannot occur. This professor joke is the only one in the book in which the named professor really is a professor (albeit a fictional one).

#### Page 129, Professor Armstrong

This exercise is about cyclic permutations, and it of course refers to Lance Armstrong, who won the Tour de France bicycle race multiple times.

#### Page 223, Professor Olay

The exercise asks about an oil pipeline, and the professor's name refers to the cosmetic product Oil of Olay.

## Page 261, Professor Marley

In *A Christmas Carol*, Ebeneezer Scrooge's deceased partner, Jacob Marley, appears to him wrapped in chains. The exercise is about hashing with chaining.

#### Page 293, Professor Bunyan

The exercise asks about search trees, and Paul Bunyan was a legendary lumberjack in American folklore.

# Page 322, Professor Teach

No, this professor name has nothing to do with education. The exercise asks you to show that the sentinel's color is always black. Edward Teach was the given name of the famed pirate Blackbeard.

# Page 330, Professors Skelton and Baron

The solution to the exercise has to do with two red nodes in a row. The professors are Red Skelton (a comedian) and Red Baron (the WW I flying ace).

# Page 390, Professor Capulet

Juliet Capulet, in the Shakespeare play *Romeo and Juliet*, made a hasty, suboptimal decision, which is what the exercise asks about.

## Page 408, Professor Stewart

The problem is about planning a party, and who better to do so than Martha Stewart?

## Page 427, Professor Gekko

In the film *Wall Street*, the character Gordon Gekko utters the memorable lines ``Greed—for lack of a better word—is good. Greed is right. Greed works."

### Page 526, Professor Pinocchio

Another bad pun here. As you surely know, Pinocchio's nose grew whenever he fibbed, and the exercise is on Fibonacci heaps.

#### Page 526, Professor Pisano

Fibonacci's real name was actually Leonardo Pisano.

#### Page 529, Professor McGee

Another bad pun: an old-time radio program featured a character named Fibber McGee. The exercise is about Fibonacci heaps.

#### Page 568, Professor Gompers

Samuel Gompers was an early union organizer, and the question is about disjoint-set union.

#### Page 581, Professor Dante

Dante wrote about the levels of Hell, and this exercise asks about the levels of nodes.

## Pages 612–613, Professor Bumstead

Another bad pun: Dagwood Bumstead is a comic-strip character, and the example is about a dag.

### Page 620, Professor Bacon

The exercise is on strongly connected components, we all know about the "Six Degrees of Kevin Bacon."

# Page 629, Professor Sabatier

This exercise is about cuts in graphs, and Sabatier is a maker of fine knives.

# Page 637, Professor Borden

Lizzie Borden was accused of murdering her father and stepmother on Fall River, Massachusetts in 1892 with a hatchet:

## Lizzie Borden took an axe

And gave her mother forty whacks.

When she saw what she had done

She gave her father forty-one.

Although Borden was acquitted, her trial received a huge amount of publicity.

# Page 643, Professor Patrick

Danica Patrick, Indy race car driver, lives in Phoenix but works in Indianapolis.

## Page 663, Professor Gaedel

Eddie Gaedel was a midget who played major league baseball. He signed with the St. Louis Browns in 1951 as a publicity stunt. He made one plate appearance and, not surprisingly, walked on four pitches. The team then sent in a pinch runner for him. That was his only major league appearance. Given that he never played minor league baseball, you could say that, in two ways, he took the shortest path to the majors.

# Page 663, Professor Newman

Randy Newman wrote the song "Short People."

### Page 705, Professor Greenstreet

This exercise is about reweighting, and Sidney Greenstreet played ``The Fat Man" in the film *The Maltese Falcon*.

## Page 705, Professor Michener

Yet another literary reference. The exercise asks about a source vertex. James Michener wrote the novel *The Source*.

## Page 714, Professor Adam

In the Bible, Adam's sons, Cain and Abel, really did not get along.

## Page 761, Professor Gore

What did Bill Clinton play on his saxophone? Al Gore rhythms.

# Page 791, Professor Karan

Fashion designer Donna Karan has designed a few threads in her time.

## Page 1020, Professor van Pelt

Another bad pun. This question is about lines, and a frequent character in the comic

strip "Peanuts" is Linus van Pelt. (Yes, we could have used Professor Torvalds, but that would be too obvious.)

# Page 1021, Professor Amundsen

The exercise requires exploring of polar angles, and Roald Amundsen was a famous polar explorer, and the first man to reach the South Pole.

# Page 1028, Professors Mason and Dixon

This one is pretty obvious: it refers to the Mason-Dixon line.

# Page 1043, Professor Williams

The tennis-playing Williams sisters—Serena and Venus— are a ``close pair."

### Page 1046, Professor Charon

Another bad pun here. Charon was the boatman of Greek mythology who ferried souls across the River Styx. The problem asks about picking up sticks.

### Page 1078, Professor Sartre

The exercise asks about the existence of an algorithm, and of course Jean-Paul Sartre was a famous existentialist.

### Page 1085, Professor Jagger

The exercise is about the satisfiability problem, and Mick Jagger of the Rolling Stones sang, ``I can't get no satisfaction."

# Page 1111, Professor Bündchen

This problem is about set covers, and supermodel Gisele Bündchen is a well known "cover girl."

## Page 1166, Professor Narcissus

In Greek mythology, Narcissus was in love with himself. The exercise asks about reflexive relations.

## Pages 1194 and 1207, Professors Rosencrantz and Guildenstern

In Tom Stoppard's play *Rosencrantz and Guildenstern Are Dead*, the play begins with Rosencrantz and Guildenstern flipping a coin only to discover that heads are produced consecutively.