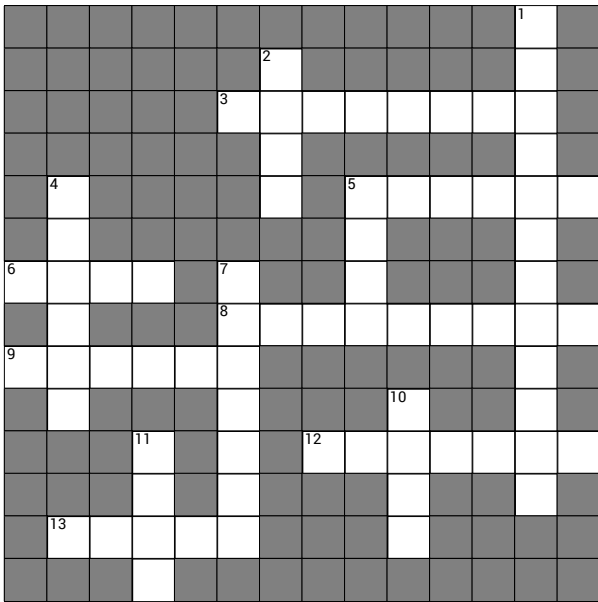# Puzzles

Crossword

Across. 3 "apt-get install" **6** Wriggly bootloader **8** Allows you to use PacMan whilst doing work **9** "The Universal Operating System" **12** *box **13** Short, user friendly desktop environment

Down. 1 Makes up an OS. Also, binomial ____. **2** Pentesting distro **4** At the centre of an OS **5** Unix shell, good for percussive maintenance **7** Documentation galore, commandline accessed **10** ____ make me a sandwich. **11** Superuser, like carrots

Brain Teasers

A. Write a Linux kernel module, and stand-alone Makefile, that when loaded prints to the kernel debug log level, "Hello World!" Be sure to make the module unloadable as well! (This problem was taken from `eudyptula-challenge.org`; it's great fun and I'd thoroughly recommend signing up for it.)

B. There is a pile of twelve coins, eleven of which are real and one of which is a counterfeit. The counterfeit coin will be either heavier or lighter than the other coins, which are all of equal weight. To find the counterfeit coin, you have a balance scale to place the coins on. In only THREE weighings, find which coin is counterfeit and whether it is heavier or lighter.

C. Find the maximum area of a rectangle inscribed in a unit circle.

Takuzu

The goal of this problem is to fill the grid with 1 and 0. The rules of the game are:

1. each line has the same number of 1s and 0s;
2. no more than two consecutive cells may contain the same digit; and
3. each row and each column have to be unique.

Issue 102 Solutions

Brain Teasers

A. `0x77D` **B.** `Hello World!`

Takuzu

0	1	0	0	1	1	0	1	1	0
0	1	1	0	1	0	0	1	1	0
1	0	0	1	0	1	1	0	0	1
0	0	1	0	1	1	0	0	1	1
1	1	0	0	1	0	1	1	0	0
0	1	0	1	0	0	1	0	1	1
1	0	1	1	0	1	0	1	0	0
0	1	0	0	1	1	0	1	0	1
1	0	1	1	0	0	1	0	1	0
1	0	1	1	0	0	1	0	0	1

Crossword

■ *Emily Saunders Walmsley*