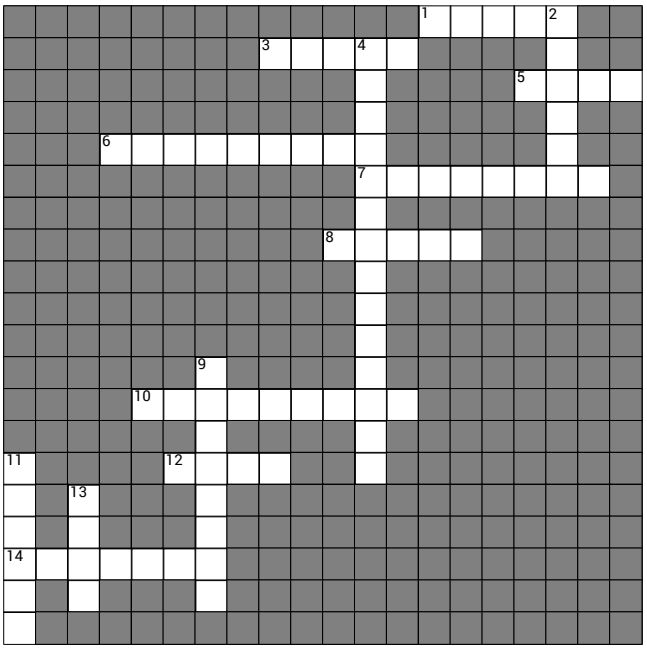
Puzzles

Crossword



Across. 1 Pythagorean divinity **3** Primarily used in finance systems **5** An object oriented shiny rock **6** capitaliseAndRemoveAllSpaces **7** Developed by Grace Hopper **8** While, for, etc **10** Bad code can be compared to this food **12** Pez-like stack **14** No side effects

Down. 2 Holds real numbers **4** e.g. Java **9** x **11** Non venomous and kind to newcomers **13** Mozilla Research design

Brain Teasers

A. In the hexadecimal number system, numbers are represented using 16 different digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F. The hexadecimal number AF, when written in the decimal number system, equals $10 \times 16 + 15 = 175$. How would you write 1917 as a hexadecimal number?

B. What does the obfuscated program below write to stdout?

```
main() {
    long long P = 1, E = 2, T = 5,
        A = 61, L = 251, N = 3659,
        R = 271173410,
        G = 1479296389,
        x[] = { G * R * E * E * T ,
            P * L * A * N * E * T };
    puts((char*)x);
 }
```

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.

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

Solutions in issue 103!

■ *Emily Saunders Walmsley*