

Pico Firmi Bagels Fun

Name:

Block:

Seat:

All digits are different, 0 is never first.

A guess is made, clues are given.

Pico: right number, wrong spot

Fermi: right number, right spot

1. (a) 902 Fermi Fermi
(b) 843 Pico
(c) 382 Bagels!
(d) What is the code?

2. (a) 673 Pico
(b) 879 Bagels!
(c) 521 Bagels!
(d) 430 Pico Pico Pico
(e) What is the code

3. (a) 765 Pico Firmi
(b) 914 Pico
(c) 693 Bagels!
(d) 475 Fermi Fermi
(e) What is the code?

4. (a) 876 Pico
(b) 154 Pico Pico
(c) 824 Pico
(d) 745 Pico Fermi
(e) What is the code?

5. (a) 987 - Pico Pico
(b) 654 - Firmi
(c) 769 - Pico Firmi
(d) What is the code?

6. (a) 987 - Pico Pico
(b) 654 - Pico
(c) 321 - Bagels!
(d) 478 - Pico
(e) 795 - Pico
(f) What is the code?

7. (a) 902 Fermi Fermi
(b) 843 Pico
(c) 382 Bagels
(d) What is the code?
(e) None of these

8. (a) 7961 - Pico
(b) 8940 - Pico Fermi Fermi
(c) 8470 - Fermi Fermi Fermi
(d) What is the code?

9. (a) 9326 - Bagels!
(b) 3972 - Pico
(c) 7504 - Pico Pico
(d) 4718 - Pico Pico Pico
(e) 1857 - Pico Pico Fermi Fermi
(f) What is the code?
10. (a) 8617 - Pico Pico Fermi
(b) 3210 - Pico Pico
(c) 8172 - Pico Fermi
(d) 6137 - Pico Pico Pico Pico
(e) What is the code?
11. (a) 9876 - Pico
(b) 4501 - Pico Pico Fermi
(c) 4059 - Pico Pico Pico
(d) 8405 - Fermi Fermi
(e) What is the code?
12. (a) 8765 - Pico Fermi
(b) 4561 - Pico
(c) 8603 - Pico Pico Pico
(d) 3085 - Pico Pico
(e) What is the code?

Hints

- Keep track of excluded numbers
- Propose a code, then look at the history of clues, and see if the hints you would give using your number would produce the same clues given.

Answers

100 (1) 408 (2) 271 (3) 204 (4)
 Consider 9-Not First, if last, then 70, but that is FF not FF so in middle
 008 (5) 400 (6) 0148 (8) 7218 (9) 8701 (10)
 2001 (11) 0870 (12)

Links

- <https://sites.math.washington.edu/~mathcircle/mmc/mmc2010/PicoFermiBagel.pdf>
- <http://dst-corp.com/james/Bagels.html>
- <https://mathorama.com/wiki/doku.php?id=bagels>