Mathematician Maze<br>by Marcia Fogi Snyder<br>Menlo Park, California<br>Mathematics Teacher May 1977

Unscramble these names with the aid of the clues provided and then locate them in the mathematician maze below. Look horizontally, vertically, and diagonally.

1. CDEILU - father of geometry
2. SEDSETRAC - Frenchman who merged algebra and geometry into analytic geometry
3. AAGHOPRSTY - author of right triangle theorem: $a^{2}+b^{2}=c^{2}$
4. AGSSU - prince of mathematicians
5. LACSAP - a magic triangle based on the coefficients of the terms in a binomial expansion is named after him
6. BFFIKROH - modern mathematician who worked in many areas, including dynamical systems, the four-color problem, and number theory
7. EEHNORT - woman who developed the theory of rings
8. LERUE - a slick fellow who extended the calculus and gave us the Greek symbol for pi.
9. ENNOTW - cofounder of the calculus along with \#10
10. BEIILNZ - cofounder of the calculus along with \#9

## 11. AKNT - wrote Critique of Pure Reason

12. DDDEEIKN - developed a theorem concerning the irrational numbers and their place in the real number system
13. ROCANT - developed the theory of sets
14. BELOO - logician who defined new binary operations for algebra
15. ACEINOPR - demonstrated the relationship between geometry and the physical world
16. AENNNUM - founder of the theory of games and the designer of electronic high-speed computers
17. LLIEOAG - was concerned with gravity and falling objects
18. BCCIIAFON - brought about the adoption of Arabic numerals; wrote Liber Abaci
19. DEEIMORV - interested in probability and imaginary quantities; developed the formula
$(\cos x+I \sin x)^{n}=\cos n x+I \sin n x$
20. SUNATHPIOD - toyed with linear equations with integral roots only
21. EIPNAR - developed rule of circular parts for spherical trigonometry; invented logarithms
22. MIESARCDHE - estimated pi by inscribing regular polygons in a circle

23-25. Three scientists who definitely needed math in their research:
23. PYTMELO
24. TLPOA
25. EERPKL
26. TTSHEEESARON - developed sieve to find prime numbers
27. RREUD - inventor of a mechanical means of drawing objects in perspective
28. BEISUMO - constructed a topological surface with only one side
29. TAEMRE -- differentiated simple algebraic functions to find their maxima and minima
30. STINEEIN - credited with $\mathrm{E}=\mathrm{mc}^{2}$
31. SSKHNA - calculated pi to 707 decimal places in late 1800s
32. LLRROAC - pseudonym of Charles Dodgson, a mathematician who wrote Alice's Adventures in Wonderland
33. EOZN - a Greek whose mose famous paradox deals with the race between Achilles and the tortoise
34. GLDBCHAO - conjectured that every even number is the sum of two primes (e.g., $8=5+3$, $24=19+5)$
35. AAITYHP - an early woman astronomer and mathematician who met with a brutal death

## MATHEMATICIAN MAZE

| F | $R$ | $E$ | $I$ | $P$ | $A$ | $N$ | $E$ | $R$ | $A$ | $T$ | $O$ | $S$ | $T$ | $H$ | $E$ | $N$ | $E$ | $S$ | $A$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| F | $E$ | $X$ | $D$ | $T$ | $F$ | $G$ | $Z$ | $W$ | $X$ | $D$ | $E$ | $R$ | $V$ | $I$ | $O$ | $M$ | $E$ | $D$ | $R$ |
| $O$ | $L$ | $B$ | $M$ | $O$ | $E$ | $B$ | $I$ | $U$ | $S$ | $S$ | $A$ | $H$ | $D$ | $V$ | $H$ | $D$ | $N$ | $F$ | $C$ |
| $H$ | $P$ | $J$ | $N$ | $L$ | $D$ | $O$ | $K$ | $R$ | $H$ | $B$ | $E$ | $K$ | $O$ | $T$ | $T$ | $I$ | $S$ | $O$ | $H$ |
| K | $E$ | $D$ | $T$ | $E$ | $I$ | $T$ | $L$ | $E$ | $E$ | $G$ | $N$ | $T$ | $C$ | $C$ | $K$ | $O$ | $I$ | $L$ | $I$ |
| $R$ | $K$ | $M$ | $O$ | $M$ | $O$ | $A$ | $F$ | $L$ | $L$ | $H$ | $A$ | $B$ | $R$ | $E$ | $U$ | $M$ | $Q$ | $T$ | $M$ |
| $I$ | $S$ | $Z$ | $A$ | $Y$ | $P$ | $M$ | $E$ | $U$ | $N$ | $L$ | $T$ | $F$ | $D$ | $A$ | $R$ | $U$ | $G$ | $Y$ | $E$ |
| $B$ | $D$ | $P$ | $D$ | $Z$ | $H$ | $R$ | $R$ | $E$ | $P$ | $Z$ | $L$ | $E$ | $U$ | $B$ | $C$ | $K$ | $E$ | $R$ | $D$ |
| Q | $B$ | $G$ | $W$ | $P$ | $A$ | $E$ | $Q$ | $U$ | $Z$ | $O$ | $D$ | $A$ | $O$ | $L$ | $R$ | $S$ | $O$ | $Z$ | $E$ |
| $A$ | $B$ | $A$ | $S$ | $C$ | $N$ | $F$ | $D$ | $S$ | $F$ | $V$ | $G$ | $O$ | $Y$ | $N$ | $M$ | $T$ | $E$ | $H$ | $S$ |
| $I$ | $M$ | $L$ | $N$ | $W$ | $T$ | $D$ | $F$ | $H$ | $S$ | $H$ | $L$ | $H$ | $K$ | $N$ | $N$ | $P$ | $Z$ | $D$ | $O$ |
| $T$ | $A$ | $I$ | $Y$ | $M$ | $U$ | $Z$ | $K$ | $A$ | $Z$ | $E$ | $I$ | $X$ | $R$ | $A$ | $S$ | $W$ | $W$ | $I$ | $U$ |
| $A$ | $O$ | $L$ | $G$ | $X$ | $S$ | $A$ | $R$ | $N$ | $D$ | $L$ | $C$ | $L$ | $C$ | $M$ | $N$ | $G$ | $M$ | $L$ | $Q$ |
| $P$ | $W$ | $E$ | $T$ | $E$ | $W$ | $O$ | $T$ | $K$ | $G$ | $V$ | $C$ | $K$ | $E$ | $U$ | $M$ | $T$ | $Q$ | $C$ | $C$ |
| $Y$ | $F$ | $O$ | $P$ | $C$ | $G$ | $A$ | $U$ | $S$ | $S$ | $J$ | $A$ | $Y$ | $I$ | $E$ | $K$ | $V$ | $P$ | $U$ | $O$ |
| $H$ | $X$ | $S$ | $K$ | $A$ | $D$ | $C$ | $E$ | $M$ | $Q$ | $N$ | $N$ | $Z$ | $R$ | $N$ | $O$ | $T$ | $W$ | $E$ | $N$ |
| $T$ | $M$ | $J$ | $H$ | $G$ | $S$ | $I$ | $F$ | $V$ | $A$ | $G$ | $O$ | $L$ | $D$ | $B$ | $A$ | $C$ | $H$ | $J$ | $E$ |
| $H$ | $P$ | $T$ | $U$ | $H$ | $K$ | $C$ | $L$ | $T$ | $H$ | $A$ | $B$ | $T$ | $G$ | $U$ | $H$ | $V$ | $T$ | $C$ | $Z$ |
| $B$ | $Y$ | $L$ | $L$ | $O$ | $R$ | $R$ | $A$ | $C$ | $K$ | $N$ | $I$ | $E$ | $T$ | $S$ | $N$ | $I$ | $E$ | $Q$ | $O$ |
| $P$ | $R$ | $Z$ | $I$ | $N$ | $B$ | $I$ | $E$ | $L$ | $D$ | $M$ | $F$ | $R$ | $O$ | $V$ | $R$ | $E$ | $R$ | $U$ | $D$ |

