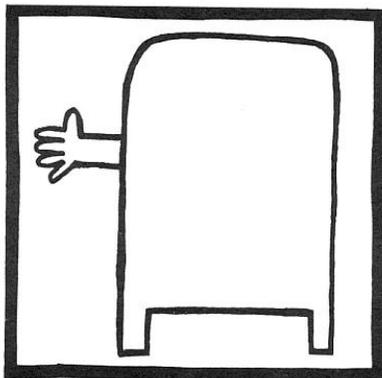


Doodle #16 – Evaluating Formulas & Solving Equations

A Puzzle by David Pleacher

Can you name this doodle?



Back in 1953, Roger Price invented a minor art form called the Doodle, which he described as "a borkley-looking sort of drawing that doesn't make any sense until you know the correct title." The doodle above was drawn by Roger Price and published in his book called, *Doodles*.

To determine the title to this doodle, you must first evaluate the 16 formulas in the puzzle and find the corresponding answers. Then replace each numbered blank in the puzzle below with the letter corresponding to the answer for that problem and that will give you the title.

Here is the title of this doodle:

$$\frac{\quad}{3} \quad \frac{\quad}{12} \quad \frac{\quad}{15} \quad \frac{\quad}{14} \quad \frac{\quad}{15} \quad \frac{\quad}{16} \quad \frac{\quad}{13} \quad \frac{\quad}{11} \quad \frac{\quad}{16} \quad \frac{\quad}{14} \quad \frac{\quad}{10} \quad \frac{\quad}{13} \quad \frac{\quad}{16} \quad \frac{\quad}{12} \quad \frac{\quad}{8} \quad \frac{\quad}{7} \quad \frac{\quad}{16}$$

$$\frac{\quad}{1} \quad \frac{\quad}{14} \quad \frac{\quad}{10} \quad \frac{\quad}{15} \quad \frac{\quad}{12} \quad \frac{\quad}{5} \quad \frac{\quad}{14} \quad \frac{\quad}{15} \quad \frac{\quad}{10} \quad \frac{\quad}{11} \quad \frac{\quad}{7} \quad \frac{\quad}{16} \quad \frac{\quad}{5} \quad \frac{\quad}{13} \quad \frac{\quad}{11} \quad \frac{\quad}{8}$$

$$\frac{\quad}{8} \quad \frac{\quad}{4} \quad \frac{\quad}{16} \quad \frac{\quad}{15}$$

Units have been omitted from the answers because they would make the choices too obvious.

Formulas:

- ___ 1. Usain Bolt is regarded as the fastest person on the planet. In 2009, he ran the 100 meters in 9.58 seconds (a world record). How fast was he traveling in miles per hour?

- ___ 2. Walter Johnson is considered by many to be the greatest major league pitcher of all time. For his career, he pitched 5,914.67 innings and allowed 1,426 earned runs. What was his E.R.A.?

- ___ 3. The World Ice Art Championships in Fairbanks, Alaska is home to the largest **ice sculpting** competition in the world. The thickest ice that was ever harvested was 54 inches thick. How much would a cube of ice weigh if each edge was 54 inches?

- ___ 4. A thunderstorm is 8 miles in diameter. Estimate how long the storm will last.

- ___ 5. In 2013, the Colorado State Women's Volleyball Team had the sixth best Hitting Percentage in the country. If they had 1,574 kills, 475 errors, and 3,674 total attack attempts, what was their hitting percentage?

- ___ 6. In volleyball, how does a player get a negative hitting percentage?

- ___ 7. How tall in inches would a woman be if her BMI = 22.0 and she weighs 118 pounds?

- ___ 8. Babe Ruth holds the career slugging percentage of .690. In 1920, Babe Ruth played his first season for the New York Yankees. In 458 at bats, Ruth had 172 hits: 73 singles, 36 doubles, 9 triples, and 54 home runs. What was his slugging percentage for that season?

- ___ 9. If lightning is one mile away from you, how many seconds from the time you see the lightning until the time you hear the thunder?

- ___ 10. If it takes you 7 hours 15 minutes to drive 500 miles, what was your average rate of speed?

- ___ 11. From 1966 to 1968, Chrysler made a 440 engine (actual displacement was 439.7 cubic inches). If the bore was 4.32 inches and there were 8 cylinders, what was the length of the stroke?
- ___ 12. Aquariums come in different sizes, but one standard size is 36"x18"x12". How many gallons of water will the aquarium hold?
- ___ 13. What size TV should you buy if your TV is 12 feet from the couch?
- ___ 14. Determine the total amount of money in your account if you invested \$1,000 at 1.1% compounded quarterly for 5 years.
- ___ 15. The highest temperature ever recorded in North America was 56.7 degrees Celsius in Furnace Creek Ranch, Death Valley, California. How hot is that in Fahrenheit degrees?
- ___ 16. Determine the total stopping distance if you are traveling at 65 mph.

Answers

- | | | |
|------------|---------------------|----------------------|
| A. 33.66 | J. when $E - K > 0$ | S. 23.355 |
| B. 144 | K. when $E > K$ | T. .847 |
| C. 4.67 | L. .299 | U. 1.54 |
| D. 66.2 | M. 5196.312 | V. 1.75 |
| E. 57.6 | N. 134 | W. .308 |
| F. 3.75 | O. 61.4 | X. 27.222 |
| G. 68.97 | P. 2.17 | Y. 157,464 |
| H. 1013.83 | Q. 300 | Z. None of the above |
| I. 1056.46 | R. 289 | |