

Puzzle Time

What Do You Give A Dog That Loves Computers?

Write the letter of each answer in the box containing the exercise number.

Simplify the expression. Write the answer as a power.

1.
$$\frac{8^{12}}{86}$$
 8 5

3.
$$\frac{7^{14}}{7^4}$$
 7^{10} O

3.
$$\frac{7^{14}}{7^4}$$
 7^{10} O 4. $\frac{3^7}{3^4}$ 3^3 4

5.
$$\frac{4^{12}}{4^5}$$
 4^7 \ 6. $\frac{98}{9^3}$ 9^5 &

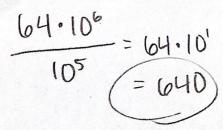
7.
$$\frac{3^4 \cdot 3^5}{3^2 \cdot 3^2} = \frac{3^9}{3^4} = 3^5 \text{T}$$

7.
$$\frac{3^4 \cdot 3^5}{3^2 \cdot 3^2} \frac{3^9}{3^4} = 3^5 T$$
 8. $\frac{8^{15}}{8^7 \cdot 8} \frac{8^{15}}{8^8} = 8^7 G$

9.
$$\frac{4^5 \cdot 4^9}{4^3 \cdot 4^3} \frac{4^{14}}{4^{16}} = 4^{16} S$$
 10. $\frac{9^{14} \cdot 9^5}{9^7} \frac{9^{16}}{6^7} = 9^{12} D$

11.
$$\frac{7^3 \cdot 7^9}{7^2 \cdot 7^1} \frac{7^{12}}{7^3} = 7^9 D12. \frac{3^{15} \cdot 3^8}{3^9 \cdot 3^6} \frac{3^{23}}{3^{15}} = 3^8 6$$

- 13. There are about 4 10⁵ known species of beetles. The number of known species of caddis flies is about 10⁴. How many times more species of beetles are there than caddis flies? 41) more I
- 14. The area of the Pacific Ocean is approximately 64 • 106 square miles. The area of the Gulf of Mexico is approximately 10⁵ square miles. How many times greater is the area of the Pacific Ocean than the area of the Gulf of Mexico?



Answers

- $Y. 3^3$
- **D.** 9^{12}
- 1. 47
- D. 79
- E. 95
- E. 39
- T. 40
- **G.** 8^7
- O. 710
- S. 48
- S. 86
- K. 640
- T. 35
- **G**. 3^8

13.	4-105	= 4.10
	104	(40)