Multiplication Patterns

Use mental math to complete the pattern.

1. $8 \times 3 = 24$

$(8 \times 3) \times 10^1 = \underline{\ \ 240\ \ }$

$(8 \times 3) \times 10^2 = \underline{\ \ 2,400\ \ }$

$(8 \times 3) \times 10^3 = \underline{\ \ 24,000\ \ }$

2. $5 \times 6 = \underline{\hspace{1.5cm}}$

$(5 \times 6) \times 10^1 = \underline{\hspace{1.5cm}}$

$(5 \times 6) \times 10^2 = \underline{\hspace{1.5cm}}$

$(5 \times 6) \times 10^3 = \underline{\hspace{1.5cm}}$

3. $3 \times \underline{\hspace{1.5cm}} = 27$

$(3 \times 9) \times 10^1 = \underline{\hspace{1.5cm}}$

$(3 \times 9) \times 10^2 = \underline{\hspace{1.5cm}}$

$(3 \times 9) \times 10^3 = \underline{\hspace{1.5cm}}$

4. $\underline{\hspace{1cm}} \times 4 = 28$

$(7 \times 4) \times \underline{\hspace{1cm}} = 280$

$(7 \times 4) \times \underline{\hspace{1cm}} = 2,800$

$(7 \times 4) \times \underline{\hspace{1cm}} = 28,000$

5. $6 \times 8 = \underline{\hspace{1.5cm}}$

$(6 \times 8) \times 10^2 = \underline{\hspace{1.5cm}}$

$(6 \times 8) \times 10^3 = \underline{\hspace{1.5cm}}$

$(6 \times 8) \times 10^4 = \underline{\hspace{1.5cm}}$

6. $\underline{\hspace{1.5cm}} \times 4 = 16$

$(4 \times 4) \times 10^2 = \underline{\hspace{1.5cm}}$

$(4 \times 4) \times 10^3 = \underline{\hspace{1.5cm}}$

$(4 \times 4) \times 10^4 = \underline{\hspace{1.5cm}}$

Use mental math and a pattern to find the product.

7. $(2 \times 9) \times 10^2 = \underline{\hspace{1.5cm}}$

8. $(8 \times 7) \times 10^2 = \underline{\hspace{1.5cm}}$

9. $(3 \times 7) \times 10^3 = \underline{\hspace{1.5cm}}$

10. $(5 \times 9) \times 10^4 = \underline{\hspace{1.5cm}}$

11. $(4 \times 8) \times 10^4 = \underline{\hspace{1.5cm}}$

12. $(8 \times 8) \times 10^3 = \underline{\hspace{1.5cm}}$

Problem Solving Real World

13. The Florida Everglades welcomes about 2×10^3 visitors per day. Based on this, about how many visitors come to the Everglades per week?

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14. The average person loses about 8×10^1 strands of hair each day. About how many strands of hair would the average person lose in 9 days?

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15. **WRITE** ▷*Math* Do the products 40 × 500 and 40 × 600 have the same number of zeros? Explain.

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Lesson Check

1. How many zeros are in the product $(6 \times 5) \times 10^3$?

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2. Addison studies a tarantula that is 30 millimeters long. Suppose she uses a microscope to magnify the spider by 4×10^2. How long will the spider appear to be?

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Spiral Review

3. Hayden has 6 rolls of dimes. There are 50 dimes in each roll. How many dimes does he have altogether?

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4. An adult ticket to the zoo costs $20 and a child's ticket costs $10. How much will it cost for Mr. and Mrs. Brown and their 4 children to get into the zoo?

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5. At a museum, 100 posters are displayed in each of 4 rooms. Altogether, how many posters are displayed?

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6. A store sells a gallon of milk for $3. A baker buys 30 gallons of milk for his bakery. How much will he have to pay?

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