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## 5.NBT.A.2 Multiplication Patterns in Solving Word Problems

5.NBT.A.2: Explain patterns in zeros of the product and in the placement of the decimal point.

| 1. | Use  | facts and multiplication patterns |
|----|------|-----------------------------------|
| to | find | the product.                      |

|    |                     | Answers: |
|----|---------------------|----------|
| a. | $30 \times 80$      | a.       |
| b. | $80,000\times500$   | b.       |
| c. | $600 \times 15$     | c.       |
| d. | $20\times12,\!000$  | d.       |
| e. | $8,000 \times 10$   | e.       |
| f. | $50,000 \times 600$ | f.       |
| g. | $40\times900,\!000$ | g.       |
| h. | $300\times40,\!000$ | h.       |

2. Find the missing number (\_\_) to make a true number sentence.

| a. |                  | $\times$ 3,000 = 270,000 |
|----|------------------|--------------------------|
| b. | 120 ×            | = 360,000                |
| c. |                  | $\times$ 9,000 = 540,000 |
| d. |                  | × 700,000 = 420,000,000  |
| e. |                  | $\times$ 800 = 56,000    |
| f. | 5,000 × 20,000 = |                          |
| g. |                  | $\times$ 250 = 10,000    |
| h. |                  | $\times$ 50 = 20,000     |
|    |                  |                          |

3. A sausage factory can produce about 60,000 sausages per week. How many sausages can be produced in 50 weeks?

Answer:

4. A concert-for-a-cause sold 75,000 tickets in each city they will perform. If the concert-for-a-case will be held in 40 cities, how much money was collected from all the tickets that are sold?

Answer:

5. There are 20 students in a class. The class is going on an amusement park. Each student is given a ticket worth \$1,500. How much money does the whole class will spend?

Answer:

6. A box can hold 15 jars of jellies. How many jars of jellies can 1,500 boxes hold?

7. Use the fact  $73 \times 43 = 3{,}139$  to find out the multiplication of  $7{,}300 \times 43{,}000$ . Explain your method.

Answer: Answer:

8. What is the value of expression  $50 \times 7,000$ ?

Answer:

A. 3,500,000

B. 3,500

C. 35,000

D. 350,000

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## 5.NBT.A.2 Multiplication Patterns in Solving Word Problems

5.NBT.A.2: Explain patterns in zeros of the product and in the placement of the decimal point.

Answer Key

1. Use facts and multiplication patterns to find the product.

| a. | $30 \times 80$ |
|----|----------------|

b. 
$$80,000 \times 500$$

c. 
$$600 \times 15$$

d. 
$$20 \times 12,000$$

e. 
$$8,000 \times 10$$

f. 
$$50.000 \times 600$$

g. 
$$40 \times 900,000$$

h. 
$$300 \times 40,000$$

Answers:

- a. 2,400
- b. 40,000,000
- c. 9,000
- d. 240,000
- e. 80,000
- f. 300,00,000
- g. 36,000,000
- h. 12,000,000

2. Find the missing number (\_\_) to make a true number sentence.

a. 
$$90 \times 3,000 = 270,000$$

c. 
$$60 \times 9,000 = 540,000$$

e. 
$$70 \times 800 = 56,000$$

f. 
$$5,000 \times 20,000 = 100,000,000$$

g. 
$$\underline{40}$$
  $\times 250 = 10,000$ 

h. 
$$400 \times 50 = 20,000$$

3. A sausage factory can produce about 60,000 sausages per week. How many sausages can be produced in 50 weeks?

Answer: 3,000,000 sausages

4. A concert-for-a-cause sold 75,000 tickets in each city they will perform. If the concert-for-a-case will be held in 40 cities, how much money was collected from all the tickets that are sold?

Answer: \$3,000,000

5. There are 20 students in a class. The class is going on an amusement park. Each student is given a ticket worth \$1,500. How much money does the whole class will spend?

Answer: \$30,000

6. A box can hold 15 jars of jellies. How many jars of jellies can 1,500 boxes hold?

7. Use the fact  $73 \times 43 = 3{,}139$  to find out the multiplication of  $7{,}300 \times 43{,}000$ . Explain your method.

Answer: 22,500 boxes

Answer:

313,900,000; I just added five zeros – two from 7,300 and three from 43,000 – to 3,139.

- 8. What is the value of expression  $50 \times 7,000$ ?
  - A. 3,500,000
- B. 3,500
- C. 35,000
- D. 350,000

Answer: D. 350,000