

Can you multiply by 25, 250, or 2.5 in your head?

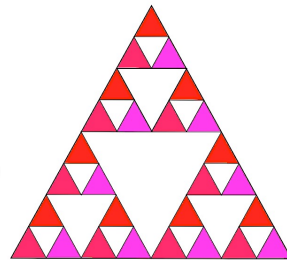
$$36 \times 25 = 900$$

$$1,824 \times 2.5 = 4,560$$

$$36.486 \times 25 = 912.15$$

$$184 \times 0.25 = 46$$

$$28 \times 250 = 7,000$$



Study the multiplication problems above.

1. Do you notice any patterns? If so, describe what you notice.
2. Try these multiplications of numbers by 25 in your head.
 - a. $68 \times 25 =$
 - b. $72 \times 25 =$
 - c. $1,260 \times 25 =$
 - d. $4,722 \times 25 =$
 - e. What is $235 \times 25 =$
4. Please try to explain what you think is going on here.
5. Now try these:
 - a. $24 \times 0.25 =$
 - b. $186 \times 0.25 =$
 - c. $4,680 \times 0.25 =$
6. Write down what rule you might be using to mentally do these calculations.
7. Make up some more problems that you think that you can do in your head and can share with your class.

8. Can you do these in your head as well?

a. $2.4 \times 25 =$

b. $7.86 \times 25 =$

c. $228 \times 250 =$

9. Try to explain why you think your method works.

10. What are some numbers that might be more difficult to multiply by 25 with your method?

11. How might you introduce this new mental math ability to your family?