Multiplying Decimals by 10, 100, or 1,000

You can use patterns to multiply decimals mentally by 10, 100, and 1,000.

Andrew starts selling his baseball cards for $0.10 each. After selling 10 cards, he has made $1.00. After selling 100 cards, he has made $10.00.

When you multiply by
- $10 (10^1)$ Move decimal point by 1 place to the right
- $100 (10^2)$ Move decimal point by 2 places to the right
- $1,000 (10^3)$ Move decimal point by 3 places to the right

If Andrew sold 1,000 cards, how much money would he make? ____________

Mental Math For questions 1 through 4, find the product using mental math.

1. $6.1 \times 10$ ________________
2. $100 \times 37.98$ ________________
3. $92.3 \times 1,000$ ________________
4. $0.418 \times 100$ ________________

5. Myla has an antique flower vase that she bought for $15.75 many years ago. The vase’s value is now 1,000 times as great. What is the value of the vase? ________________

6. Raul can hit a golf ball 26.4 yards. A.J. can hit a golf ball 10 times as far. How far can A.J. hit the ball? ________________

7. Is 0.018 a reasonable answer for $1.8 \times 100$? ________________