

Multiplying by 6 Using Patterns

Unlike with other numbers, multiplying *even* numbers by 6 results in a recognizable pattern. For example:

$$6 \times 2 = 12$$

$$6 \times 4 = 24$$

$$6 \times 6 = 36$$

$$6 \times 8 = 48$$

You should notice that the number that is multiplied by six (the second number in the equations above) is the same as the last digit of the answer. For example, if you multiply 6 by 2, the last digit of the answer is also 2. (The answer is 12.) This happens every time you multiply six by an even number. (This doesn't work for *odd* numbers.)

Write the correct number on the blank spaces.

1. $6 \times 10 = 60$

2. $6 \times 12 =$ _____

3. $6 \times 14 =$ _____

4. $6 \times 16 =$ _____

Challenge questions:

5. $6 \times 18 =$ _____

6. $6 \times 26 =$ _____

7. $6 \times 42 =$ _____

8. $6 \times 74 =$ _____