

Multiplying by Powers of 10

1. Multiply 32 by 1; 10; 100; 1,000; 10,000

$$32 \times 1 = 32$$

$$32 \times 10 = 320$$

$$32 \times 100 = 3200$$

$$32 \times 1,000 = 32,000$$

$$32 \times 10,000 = 320,000$$

Shortcut rule: However many 0's are on the left, put them on the right.

2. Write each power of 10 using exponents.

$$32 \times 1 =$$

$$32 \times 10 =$$

$$32 \times 100 =$$

$$32 \times 1,000 =$$

$$32 \times 10,000 =$$

$$32 \times 10^0 =$$

$$32 \times 10^1 =$$

$$32 \times 10^2 =$$

$$32 \times 10^3 =$$

$$32 \times 10^4 =$$

$$32$$

$$320$$

$$3200$$

$$32,000$$

$$320,000$$

$$3. 12 \times 10^4 = 120,000$$

$$4. 20 \times 1,000 = 20,000$$

$$5. 10^2 \times 39 = 3,900$$