Powers of 10 and Exponents

COMMON CORE STANDARD MACC.5.NBT.1.2
Understand the place value system.

Write in exponent form and word form.

1. $10 \times 10 \times 10$

exponent form: ___10^3___

word form: ___the___ ___third power___ ___of ten___

2. 10×10

exponent form: _____

word form: _____

_____

_____

3. $10 \times 10 \times 10 \times 10$

exponent form: _____

word form: _____

_____

_____

Find the value.

4. 10^3

5. 4×10^2

6. 9×10^4

7. 10^1

_____

_____

_____

_____

8. 10^5

9. 5×10^1

10. 7×10^3

11. 8×10^0

_____

_____

_____

_____

Problem Solving REAL WORLD

12. The moon is about 240,000 miles from Earth. What is this distance written as a whole number multiplied by a power of ten?

_____

13. The sun is about 93×10^6 miles from Earth. What is this distance written as a whole number?

_____

Lesson Check (MACC.5.NBT.1.2)

1. Which of the following is NOT equivalent to "3 times the sixth power of 10?"

   (A) 3×10^6

   (B) 3,000,000

   (C) $3 \times 10 \times 6$

   (D) $3 \times 1,000,000$

2. Gary mails 10^3 flyers to clients in one week. How many flyers does Gary mail?

   (A) 10

   (B) 100

   (C) 1,000

   (D) 10,000

Spiral Review (Reviews MACC.4.NBT.2.5, MACC.4.NBT.2.6)

3. Harley is loading 625 bags of cement onto small pallets. Each pallet holds 5 bags. How many pallets will Harley need? **(Grade 4)**

   (A) 125

   (B) 620

   (C) 630

   (D) 3,125

4. Marylou buys a package of 500 jewels to decorate 4 different pairs of jeans. She uses the same number of jewels on each pair of jeans. How many jewels will she use for each pair of jeans? **(Grade 4)**

   (A) 100

   (B) 125

   (C) 200

   (D) 2,000

5. Manny buys 4 boxes of straws for his restaurant. There are 500 straws in each box. How many straws does he buy? **(Grade 4)**

   (A) 20,000

   (B) 2,000

   (C) 200

   (D) 125

6. Cammie goes to the gym to exercise 4 times per week. Altogether, how many times does she go to the gym in 10 weeks? **(Grade 4)**

   (A) 4

   (B) 10

   (C) 20

   (D) 40