Grade 5 Unit 1 worksheet: Powers of ten

Name _____ Date _____ Period _____

1. Fill in each blank or box.

(a) $10^4 =$ _____

(b) $10 \times 10 \times 10 \times 10 \times 10 = 10^{\square}$

(c) $10^{\square} = 100$

(d) $10^0 =$ _____

(e) $100{,}000{,}000 = 10^{\square}$

(f) $\text{one million} = 10^{\square}$

2. Multiply.

(a) 8×10^3

(b) 64×10^2

(c) 305×10^1

(d) 90×10^4

(e) 7×10^0

(f) $1{,}200 \times 10^3$

Free sample from math.wiki for classroom use. Do not post. math.wiki

3. Lucas says $10^4 = 40$, because 10 times 4 is 40. Explain Lucas's mistake. Then find the right value of 10^4.

4. Use the number 3,604,729.

(a) The 6 is worth $6 \times 10^{\square}$. What exponent goes in the box?

(b) Which place is worth 10^3? What digit is in that place?

(c) The 0 is in which place? Write that place as a power of ten. What is the 0 worth?

5. What exponent goes in each box?

(a) $95 \times 10^{\square} = 9{,}500{,}000$

(b) $380 \times 10^{\square} = 38{,}000$

6. Priya counts paper clips in the school supply room. A crate holds 10^4 clips, a carton holds 10^3 clips and a box holds 10^2 clips. She finds 3 crates, 7 cartons, 5 boxes and 8 loose clips.

(a) Write the number of clips in expanded form using powers of ten.

(b) Write the number of clips as a number.

Free sample from math.wiki for classroom use. Do not post. math.wiki