Name Date Period

Unit 1b Test on Friday October 28, 2016 Scientific Notation

Write in standard notation

(4.75×10^{-5})	(9.123×10^{9})
0.0000475	9,123,000,000

Write in scientific notation

0.00000000345	2,380,000,000
3.45×10^{-9}	2.38×10^{9}

Addition and Subtraction

8.85×10^{-5} 8.853×10^{-7} $35.6 - 9.02$ 2.658×10^{-3}

$(8.9 \times 10^{-5}) - (6.7 \times 10^{-7})$	$(3.56 \times 10^{-2}) + (9.02 \times 10^{-3})$
890 - 6.7 885.3	26.58×10^{-3}
$(1.4 \times 10^{12}) - (5.6 \times 10^{11})$	$(4.12 \times 10^{-3}) + (6.45 \times 10^{-2})$
8.4×10^{11}	6.862×10^{-2}

Multiplication and Division 7.84×10^{-27} 0.9×10^{11} 9×10^{10}

$(1.4 \times 10^{-12})(5.6 \times 10^{-15})$	$(7.29 \times 10^{32}) \div (8.1 \times 10^{21})$
$(6.31 \times 10^{13})(5 \times 10^{2})$	$(2.025 \times 10^{-2}) \div (4.5 \times 10^{-3})$
3.155×10^{16}	0.45×10^{1} 4.5×10^{2}

Cube roots

$\sqrt[3]{\frac{343}{64}} = \frac{7}{4}$	$x^3 = -8$ -2
$\sqrt[3]{-125}$ -5	$z^3 = 216$ 6

Square roots

$-\sqrt{81}$ -9	$c^2 = 144$ ± 12
$\pm\sqrt{100}$ ± 10	$f^2 = 49$ ± 7

Name Date Period

1. The bedroom of our house is 1,200 cubic meters. We know that there are 3.4×10^9 particles of dust per cubic meter. Write how many particles of dust are present in the bedroom of our house.

$(1.2 \times 10^3)(3.4 \times 10^9)$

4.08×10^{12} dust particles

2. If we suppose that the volume of Lake Rason is approximately (2.56×10^5)km^3 and Lake Rason is (2×10^2) times the volume of Lake Jaso, write the volume of Lake Jaso (approximately).

bigger

$\frac{2.56 \times 10^5}{2.0 \times 10^2} = 2.63 \times 10^3$

3. A computer's hard disk holds 8×10^7 bytes of information. If Jill buys an extra memory stick that holds 3×10^6 bytes of information. How much memory can her computer hold altogether?

$8 \times 10^7 + 3 \times 10^6$

$80 + 3$

8.3×10^7