

Name _____

Common Core Standard 8.EE.A.3 – Expressions and Equations

 Express the number in standard notation: 3.001×10^6 . Be sure to show your work.

A 3.001 000

B 3, 001, 000

C 3, 010, 000

D 3, 100, 000

Common Core Standard 8.EE.A.3 – Expressions and Equations

 Express the number in standard notation: 1.23×10^{-10} . Be sure to show your work.

A 0.000 000 012 300

B 0.000 000 000 012 300

C 0.000 000 000 123

D 0. 000 012 300

Common Core Standard 8.EE.A.3 – Expressions and Equations

 Express the number in scientific notation: 1, 000, 000, 000. Be sure to show your work.A 1×10^9 B 1×10^8 C 10×10^9 D 1×10^{10}

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Common Core Standard 8.EE.A.3 – Expressions and Equations

 Express the number in scientific notation: 0.000 000 007 004. Be sure to show your work.

A 7.004×10^{-9}

B 7.004×10^{-7}

C 7.400×10^{-9}

D 7.040×10^{-8}

Common Core Standard 8.EE.A.3 – Expressions and Equations

 Simplify the expression. Write your answer in scientific notation. Be sure to show your work.

$$(2.2 \times 10^6) \div (5 \times 10^{-2}) =$$

A 3.5×10^6

B 1.1×10^7

C 2.27×10^4

D 4.4×10^7

Common Core Standard 8.EE.A.3 – Expressions and Equations

 Simplify the expression. Write your answer in scientific notation. Be sure to show your work.

$$\frac{8 \times 10^7}{5 \times 10^4} \times 10^3 =$$

A 1.6×10^6

B 6.25×10^0

C 1.375×10^8

D 4.5×10^5

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Common Core Standard 8.EE.A.3 – Expressions and Equations

Which symbol makes the statement true? 4.56×10^{-7} ? 3.951×10^{-6} . Be sure to show your work.

A >

B <

C \geq D \leq

Common Core Standard 8.EE.A.3 – Expressions and Equations

Which number is larger: 1.8×10^{-13} or 6.3×10^{-12} ? By how many times? Be sure to explain your answer.

A 1.8×10^{-13} ; 35B 6.3×10^{-12} ; 35C 6.3×10^{-12} ; 20D 1.8×10^{-13} ; 20

Common Core Standard 8.EE.A.3 – Expressions and Equations

Which number is larger: 8.2×10^8 or 2.46×10^9 ? By how many times? Be sure to show your work.

A 2.46×10^9 ; 3B 2.46×10^9 ; 30C 8.2×10^8 ; 3D 8.2×10^8 ; 30

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Common Core Standard 8.EE.A.3 – Expressions and Equations

- Ann receives \$3600 as a scholarship in a year. How much does she receive as scholarship in 3 years? In 6 years? Express your answer in scientific notation. Be sure to show your work.

- A 7.2×10^4 ; 2.16×10^2
B 1.08×10^4 ; 2.16×10^4
C 7.2×10^4 ; 2.16×10^3
D 1.08×10^3 ; 2.16×10^3

Common Core Standard 8.EE.A.3 – Expressions and Equations

- Demo-graphologists keep track of how the populations of certain area change. According to their statistics, in 1985 the population of the United State was 2.4×10^8 , but in 2005 it increased to 3.0×10^8 . How many more people in the US were there in 2005 than in 1985? Be sure to show your work.

- A 6×10^8
B 0.6×10^9
C 0.6×10^7
D 6×10^7

Common Core Standard 8.EE.A.3 – Expressions and Equations

- The Sun is about 93 million miles away from Earth. Approximately how long would it take for light to reach Earth, if the speed of light is 1.86×10^5 mi/sec? Express your answer in scientific notation. Be sure to show your work.

- A 5×10^1 seconds
B 5.0×10^2 seconds
C 0.5×10^2 seconds
D 5.0×10^3 seconds