Mathematics

Power Standard 8:2

Post-Formative Test

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_\_\_\_\_

1. · n=1

a.

b

c.

d. 0

1. 5⁶ means
2. 5·5·5·5·5·5
3. 5·6
4. 5+5+5+5+5+5
5. 6·6·6·6·6
6. 729 =
7. 94
8. 9 · 9 · 9· 9
9. 9 3
10. 9 · 3
11. Complete the following pattern.

24 = 16, 23 = 8, 22 = 4, 21 = 2, 20 = 1, 2 -1 = \_\_\_\_\_\_\_\_\_, 2-2 = \_\_\_\_\_\_,

2 -3 = \_\_\_\_\_\_\_\_\_\_

1. 4.5·10-5=

a. 0.000045

b. 0.0000045

c. 50,000

d. -4.500000

6. 7.8 · 10 6 =

a. 78,000,000

b. 780,000

c. 7,800,000

d. 0.00000078

7. Write the following number in scientific notation: 5,460,000

a. 5.46 · 106

b. 546 · 104

c. 5.46 · 104

d. 5.46 · 10 -4

8. Write the following number in scientific notation: 0.00024

a. 2.4 · 10 3

b. 2.4 · 10 -4

c. 2.4 · 10 -3

d. 24 · 10 -5

9. Compute and express each value in scientific notation. Show work. Need box for work and answer.

(130,000)(0.0042)

0.0002

10. Arrange these numbers in increasing order.

216,000; 2.4 · 103; 1.9 · 107 ; 199,000

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Write the following number in scientific notation: 267,000,000

12. Write the following number in standard form: 9.02 · 10 -3

13. Which of the following is listed as least to greatest?

a. 12, -2.12, -2.45, -2

b. 3.0, -3.0, 3.01, 3½, 200%

c. – 2.5, -2.75, -3, -1½, 1

d. - 2½, -1.1, -1, 2.375, 300%, 4¾

1. Choose a number greater than 100 that can be written as the product of the same factor. Then write it as a base with an exponent.

Need box for work and answer

1. Divide 42 by 55 and round your answer to the nearest hundredth.
2. 0.77
3. 0.76
4. 1.31
5. 1.30
6. David got 12 out of 18 correct on his math test. Express the number he got correct as a fraction in simplest form, as a decimal, and as a percent.

Need box for answer

1. Evaluate *a/b*, if a = -¼ and b = -¾. Express in simplest form. Show work.

Need box for work and answer

1. A construction worker has a drainage tube that is 28 feet long. He cut off a 4-foot 8 –inch section. How long is the remaining tube after the piece is cut off? Express your answer in terms of feet and inches. Show work.

Need box for work and answer

1. Explain how to solve 4/5 x = - 16 using properties of equality. Use the term **multiplicative inverse** in your explanation. Need box for work and answer
2. Solve for x: x- 1½ = 2¼

a. ¾

b. -¾

c. 3¾

d. -3¾

21. A rectangle has an area of 42 square inches, length of 3½ inches and a width of w. Write and solve a multiplication equation to determine the width of the rectangle.

3½ w = 42

W = 12 inches

Need box for equation, work an answer