

Unit 2 Pre-Test

Write the following expressions using an Exponent.

Example $2 \times 2 \times 2 \times 2 \times 2 = 2^5$

1. $4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4$

2. $3 \times 3 \times 3 \times 3 \times 3$

3. 15

4. $2.5 \times 2.5 \times 2.5 \times 2.5$

5. $0.4 \times 0.4 \times 0.4$

6. $\text{in} \cdot \text{in} \cdot \text{in}$

Name the base and the exponent.

Example 2^7 Base= 2 Exponent = 7

7. 5^4 Base= _____ Exponent = _____

8. 3^7 Base= _____ Exponent = _____

9. v^5 Base= _____ Exponent = _____

10. 4^3 Base= _____ Exponent = _____

Evaluate the following Expressions.

Example $3^4 = 3 \times 3 \times 3 \times 3 = 81$

11. $4^3 =$

12. $2^4 =$

13. $199^1 =$

14. $2,999,999^0 =$

15. Explain the meaning of a number raised to a power. Use 3^4 as an example to help your explanation.

List the factors of the following numbers.

Example 24: 1, 2, 3, 4, 6, 8, 12, 24

16. 36

17. 25

18. 56

Find the Greatest Common Factor (GCF) of the following Numbers by listing out all the factors.

Example

24: 1, 2, 3, 4, 6, 8, 12, 24

30: 1, 2, 3, 5, 6, 10, 15, 30 $GCF = 6$

19. 36 and 48

20. 25 and 35

List the first 6 Multiple of each number

Example: 8: 8, 16, 24, 32, 40, 48

21. 9:

22. 7:

23. 6:

24. 5:

Find the Least Common Multiple (LCM) by listing multiples.

Example:

8: 8, 16, 24, 32, 40, 48

6: 6, 12, 18, 24, 30, 36 $LCM = 24$

25. 7 and 8

26. 5 and 7

27. Alejandro and Jean are distributing erasers and pencils to the art class. There are 45 erasers and 36 pencils. Each student receives the same number of pencils and the same number of erasers, and no supplies are left over. What is the greatest number of students in the class?

28. A video game has three villains who appear on screen at different intervals. One villain appears every 6 seconds, a second villain appears every 15 seconds, and a third villain appears every 30 seconds. How much time passes between occasions when all three villains appear at the same time?

29. An "A" train leaves a subway station every 11 minutes. An "E" train leaves every 8 minutes. If both trains just left the station on parallel tracks, when will both leave the station together again?

30. Starting today (day 1) Lee will walk his dog Fido every 4th day and his dog Fifi every 6th Day. On which day will Lee first walk both dogs together?

31. Mrs. Davis is sewing vests. She has 48 Green Buttons and 32 yellow buttons. Each vest will have the same number of green buttons and yellow buttons. What is the greatest number of vests Mrs. Davis can make using all of the buttons?

