Pre-Algebra Chapter 1 Test

Read and answer the following questions. The first one is done for you as an example.

1. a) List the next three numbers in the sequence: 7, 14, 21, 28, 35, 42, 49.
   b) Describe the pattern. Increase each number by 7 (add 7).

2. a) List the next three numbers in the sequence: 99, 89, 80, 72.
   b) Describe the pattern. ________________________________

3. a) Make up your own sequence using 7 numbers.
   b) Describe your sequence.
   ________________________________

Write a verbal description of the number phrase. Be sure to include one of these in your description: sum, difference, product or quotient. See example.

4. 5+2 The sum of five and two equals seven. __________________________

5. (9)(3) __________________________

6. 27÷3 __________________________
Evaluate each expression

7. \((4.79)(12.3)=\) ______

8. \(2496 \div 6 = \) ______

9. \(4(7) + 45 \div 15 = \) ______

10. \([(6+8)\div2] + 63\div 21 = \) ______

Evaluate the expression and round to TWO decimal places.

11. \(\sqrt{410}\)

12. \(\sqrt{289}\)

Write each expression as a power. Then evaluate.

13. \((5)(5)(5)(5)=\) ______ = ______

14. \((1.3)(1.3)(1.3)=\) ______ = ______ (decimal answer)

15. \(\left(\frac{2}{7}\right)\left(\frac{2}{7}\right)\left(\frac{2}{7}\right) = \) ______ = ______ (fraction answer)
Solve:

16. A square carpet as an area of 529 square inches. What are the lengths of the sides of the carpet? _____

Evaluate:

17. \(5(7)+50-10=______\)

18. \((3)(2)-2^2+4(7)=______\)

19. \(4+3(2)-(5+3)+5^2=______\)

20. \(5(6-3)+10-5=______\)

Evaluate these expressions when \(x=5\) and \(y=2\).

21. \(7x-3y=\) \hspace{2cm} 22. \(9xy\)

23. \(5x^2=\) \hspace{2cm} 24. \(y^3+\sqrt{20x} =\)
Decide whether each figure is a polygon. **Circle** yes or no, then give its name.

25. 
   ![Circle](image)
   Yes No

26. 
   ![Star](image)
   Yes No

27. 
   ![Arrow](image)
   Yes No

Use the bar graph for the next four questions.

![Bar Graph](image)

28. About how many games did New Jersey win? ________________

29. Which team had the smallest difference between wins and losses? ________________

30. Write your own question that can be answered by interpreting the graph. ________________

31. Write the solution. ________________