1-1 & Numbers and Patterns/Exponents

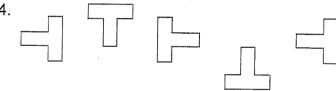
Identify a possible pattern. Use the pattern to write the missing numbers.

- 1. 72, 95, 118, 141, ____, ___, ... 2. 65, ____, 51, 44, ____, ___, 23, ...

Look for a possible pattern. Use the pattern to draw the next three figures.

3.







Find each value.

6. 3⁸

7. 7⁵

 8.50^2

9. 9⁴

10. 30³

11. 12³

Compare. Write <, >, or =.

- 12. 7² ____ 48
- 13. 9³ ____ 810
- 14. 6⁴ 10³

Write each number using an exponent and the given base.

15. 16, base 4

16. 25, base 25

17. 100, base 10

18. 125, base 5

19. 32, base 2

20. 243, base 3

21. 900, base 30

22. 121, base 11

- 23. Damon has 4 times as many stamps as Julia. Julia has 4 times as many stamps as Claire. Claire has 4 stamps. Write the number of stamps Damon has in both exponential form and standard form.
- 24. Holly starts a jump rope exercise program. She jumps rope for 3 minutes the first week. In the second week, she triples the time she jumps. In the third week, she triples the time of the second week, and in the fourth week, she triples the time of the third week. How many minutes does she jump rope during the fourth week?
- 25. Jacob has 7 times as many postcards as Austin has. Austin has 7 times as many postcards as Angela has. Angela has 7 times as many postcards as Samuel has. Samuel has 7 postcards. Write the number of postcards Jacob has in both exponential form and standard form.