

# Practice 4

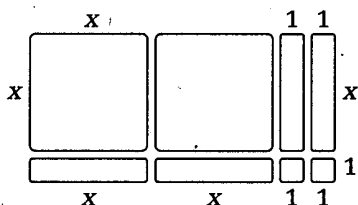
For use with Section 1-4

Calculate according to the order of operations.

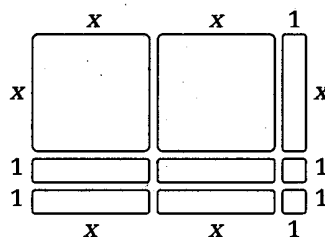
- |                                 |                                |                                 |
|---------------------------------|--------------------------------|---------------------------------|
| 1. $10 \cdot 3 + 5$             | 2. $6^1 + 12 \div 3$           | 3. $4 \cdot 2^3$                |
| 4. $25 - 3^2 \cdot 2$           | 5. $4^3 \div 8 - 2$            | 6. $54 - 6^2 \div 3$            |
| 7. $3 \cdot 5 - 2^2$            | 8. $5^3 \cdot 10 \div 2$       | 9. $10^4 \div 5 + 15$           |
| 10. $5 + 20 \cdot 3 - 1$        | 11. $5 \cdot 2^5 - 20 \div 5$  | 12. $108 - 12 \cdot 3^2$        |
| 13. $200 - (11 - 3)^2$          | 14. $200 - 11 - 3^2$           | 15. $200 - (11 - 3^2)$          |
| 16. $24 + 8 \div 2^3$           | 17. $(24 + 8) \div 2^3$        | 18. $24 + (8 \div 2)^3$         |
| 19. $(3 \cdot 10)^2 \div 5 - 4$ | 20. $3 \cdot 10^2 \div 5 - 4$  | 21. $3 \cdot 10^2 \div (5 - 4)$ |
| 22. $[(5 + 3)^2 \div 4]^2 - 3$  | 23. $27 - [6^2 \div (10 - 6)]$ |                                 |

For each group of tiles, (a) write a variable expression for the perimeter, (b) write a variable expression for the area, and (c) evaluate the expressions when  $x = 5$ .

24.



25.



Insert parentheses to make each statement true.

26.  $90 \div 5 + 4 \cdot 2 - 1 = 19$                       27.  $90 \div 5 + 4 \cdot 2 - 1 = 22$

28. Samia asked her friend, "What's 48 divided by 3 plus 5?" Her friend wondered whether she meant "48 divided by 3 ... plus 5" or "48 divided by ... 3 plus 5". Write these two interpretations as expressions and evaluate them.

29. *Open-ended* By inserting one pair of parentheses at different places in  $100 - 3^2 + 5 \cdot 4 - 6 \div 2$ , find as many different ways of evaluating the expression as you can.