

Practice 4

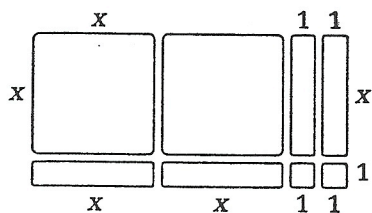
For use with Section 1-4

Calculate according to the order of operations.

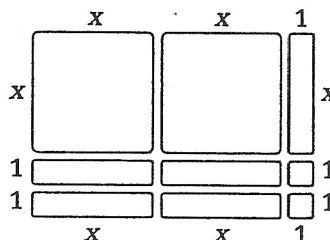
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|---------------------------------|--------------------------------|---------------------------------|
| 1. $10 \cdot 3 + 5$ | 2. $6 + 12 \div 3$ | 3. $4 \cdot 2^3$ |
| 4. $25 - 3^2 \cdot 2$ | 5. $4^3 \div 8 - 2$ | 6. $54 - 6^2 \div 3$ |
| 7. $3 \cdot 5 - 2^2$ | 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.