1. **Identify** the operation that should be done first in each expression.

   a. $9 \div 3 + (14 - 7)$           b. $3 + 24 \div 3 \cdot 4$

2. **OPEN ENDED** Write an expression containing five numbers that is evaluated by first multiplying.

3. **FIND THE ERROR** Yutaka and Cynthia are evaluating $16 - 24 \div 6 \cdot 2$. Who is correct? Explain your reasoning.

   Yutaka
   $16 - 24 \div 6 \cdot 2$
   $= 16 - 24 \div 12$
   $= 16 - 2 \text{ or } 14$

   Cynthia
   $16 - 24 \div 6 \cdot 2$
   $= 16 - 4 \cdot 2$
   $= 16 - 8 \text{ or } 8$

### GUIDED PRACTICE

**Evaluate each expression.**

4. $11 - (3 \cdot 2)$           5. $25 \div (9 - 4)$           6. $8 - 4 + 3.7$

7. $2 + 5 \cdot 5$           8. $14 \div 2 \cdot 6$           9. $8 \cdot 5 - 4 \cdot 3$

10. $4 \times 10^2$           11. $3.5 \times 5 + 6^2$           12. $7 + 4(5.6 - 2) - 9$

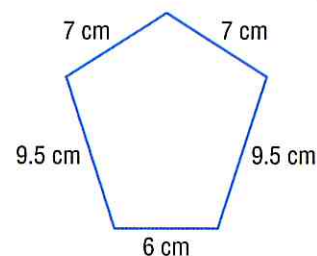13. Evaluate $(16 \div 4)^3 - 6$.           14. Find the value of $(6 + 8) \div (10 - 8)$.

### Practice and Applications

**Evaluate each expression.**

15. $(1 + 8) \times 3$           16. $10 - (3 + 4)$           17. $(25 \div 5) + 8$

18. $(11 - 2) \div 9$           19. $3 \cdot 2 + 7$           20. $15 \div 3 + 4$

21. $12 + 6.6 \div 3$           22. $18 - 3 \cdot 6$           23. $8 - 7.2 + 5$

24. $28 \div 7(5)$           25. $(17 + 3) \div (4 + 1)$           26. $(6 + 5) \cdot (8 - 6)$

27. $21 \div 3 \times 2 - 4$           28. $35 \div 5 + 56 \div 7$           29. $2 \times 9 - 4^2$

30. $24 \div 3 + 5^3$           31. $7 + (8 - 7 + 2)^4$           32. $(2 + 10)^2 \div 4$

33. $6 \times 10^2$           34. $18 \times 10^3$           35. $1.95 \times 10^2$

36. $3.7 \times 10^4$           37. $6 + 2(9.4 - 1)$           38. $3(4.5 + 7.2) - 5 \cdot 4$

39. $72 \div 3 - 5(8.8 - 6) + 9$           40. $9 \div 3 \cdot 14(10 - 8) - 60$

| HOMEWORK HELP | |
| --- | --- |
| For Exercises | See Examples |
| 15–28 | 1, 2 |
| 29–36, 43–45 | 3, 4 |
| 37–40, 46–48 | 5 |
| 41–42, 50 | 6 |
| **Extra Practice** See pages 564, 596. | |

41. **GEOMETRY** The distance around a geometric figure is called its *perimeter*. Write a numerical expression to find the perimeter of the figure at the right. Then evaluate the expression.

42. **MARATHONS** On Mondays, Wednesdays, and Thursdays, Jacob trains for a marathon for 3.5 hours. On Tuesdays and Fridays, he trains for 2 hours, and on Saturdays, he trains for 4.5 hours. How many hours does Jacob train per week?

7 cm   7 cm
9.5 cm   9.5 cm
6 cm