Name _____   Date _____

Practice B
For use with pages 8–13

Evaluate the expression.

1. $16 \div 8 \cdot 5$

2. $7^2 - 24 \div 3$

3. $5 + 1.2 \div 0.3$

4. $18 \div 6 + 4 \cdot 3$

5. $13 - 15 \div 5 + 9$

6. $\frac{2}{3} \cdot 3^2 - 5$

7. $8(6 - 2) + 4$

8. $28 - 3(4 + 5)$

9. $1.2 \cdot 5 - 6 \div 3$

10. $(11 + 15) \div 13$

11. $35 - 3^2 \cdot 2$

12. $\frac{4}{5}(3 \cdot 20) - 17$

Evaluate the expression.

13. $3x^4 - 5$ when $x = 5$

14. $8m^3 \div 6$ when $m = 3$

15. $200 - 3y^2$ when $y = 8$

16. $5c^2 - 2c$ when $c = 9$

17. $3 \cdot 18t^2$ when $t = \frac{1}{3}$

18. $\frac{42}{n} + n$ when $n = 6$

19. $7(x + 5)$ when $x = 10$

20. $\frac{5a}{a - 6}$ when $a = 8$

21. $\frac{4d^2}{d + 1}$ when $d = 3$

22. Was the expression evaluated correctly using the order of operations? If not, find and correct the error.

$$80 - \frac{1}{3}(15)^2 = 80 - 5^2 = 80 - 25 = 55$$

23. **Tournament** During a bowling tournament, you bowled three games with scores of 110, 130, and 129, respectively. Your average bowling score is given by $\frac{110 + 130 + 129}{3}$. What is your average score?

24. **Painting** Three weeks ago, an art supply store started selling a paint kit for 75% of the original price. Now the kit is 15% off of the sale price. The expression $0.75x - 0.15(0.75x)$ represents the current price of the paint kit where x is the kit's original price (in dollars). Find the current price of the kit if it originally cost $48.

25. **Crown Molding** You are decorating the perimeter of the ceiling of your living room with crown molding. The expression $2x + 2y$ represents the total amount of molding you need where x is the width of the room (in feet) and y is the length of the room (in feet). Find the total amount of wood you need if the room is 11 feet wide and 10.5 feet long.

26. **Core Sample** Before a structure is built on a plot of land, it is sometimes necessary to test the surface beneath the plot of land to determine its integrity. So, it may be necessary to take a core sample which is cylindrical in shape. Find the volume of the core sample shown by using the expression $\pi r^2 h$ where r is the radius (in inches) and h is the height (in inches) of the cylinder. Use 3.14 for π.

3 in.

36 in.