3.6 Reviewing Common Factors

MATHPOWER™ 10, Western Edition, pp. 118–120

Factor, if possible.

1. $4x + 28$

2. $3x + 17$

3. $6x - 32y$

4. $26x^2 - 13y$

5. $2ax + 10ay - 8az$

6. $2a^2 - 6a - 15$

Factor completely, if possible.

7. $8x^2 + 32y^3$

8. $10y - 5y^2 + 25y^3$

9. $14rst + 7rs - 6t$

10. $36xy - 12x^2y$

11. $4ab^2 + 2a^2c + 5b^2c^2$

12. $3x^3y^2 - 12x^2y^3 + 18x^2y + 15xy^2$
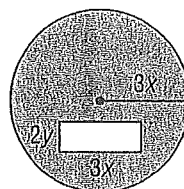
Factor, if possible.

13. $3x(y - z) - 2(y - z)$

14. $5y(z + 3) + x(z - 3)$

15. $4t(r + 6) - (r + 6)$

16. $7(a + b) - 2x(a + b)$

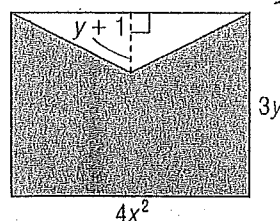17. $2x(3m - 5) - 3(5 - 3m)$

Factor by grouping.

18. $ax - by + xb - ya$

19. $y^2 - x + y - xy$

20. $ab + 9 + 3a + 3b$

21. $t^2 - tr + 4r - 4t$

22. $4x^2 + 6xy + 12y + 8x$

23. $3x^2y - 6x^2 - 2y + y^2$

24. $4ab^2 - 12a^2b - 3bc + 9ac$

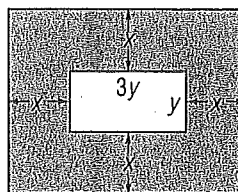*Write an expression for the area of each shaded region in factored form.*

25.

26.

27.

28.