Midterm Review (Chapters 5-6)
Answer Section

MULTIPLE CHOICE

1. B   Sec. 6.2

SHORT ANSWER

2. -4
   Sec. 5.1

3. $5^{2/3}$
   Sec. 5.2

4. $\dfrac{7}{4}$
   Sec. 5.2

5. $\dfrac{\sqrt[4]{36}}{3}$
   Sec. 5.2
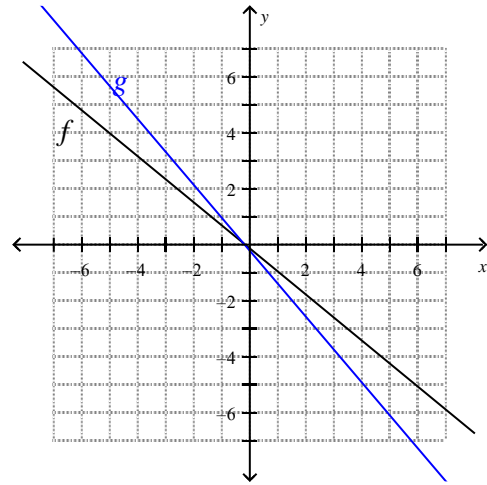
6. $\dfrac{24-8\sqrt{6}}{3}$
   Sec. 5.2

7. $8\left(5^{1/3}\right)$
   Sec. 5.2

8. $-13\left(7^{1/4}\right)$
   Sec. 5.2

9. $2x^4q^2$
   Sec. 5.2

10. $2m^3n^3p^4\sqrt[6]{m^3p}$
    Sec. 5.2

11. $\sqrt[14]{v^9}$
    Sec. 5.2

12. $g(x)=-2\sqrt[3]{x-3}+5$
    Sec. 5.3

13. $g(x)=\dfrac{4}{5}\sqrt[4]{x+4}+\dfrac{11}{5}$
    Sec. 5.3

14. $x = 6.8$
    Sec. 5.4

15. $x = 3$
    Sec. 5.4

16. $g(x)=-\dfrac{6}{5}x-\dfrac{1}{5}$

    Sec. 5.6

17. yes; $g(x)=\sqrt[3]{\dfrac{x+7}{4}}$
    Sec. 5.6

18. $\log_9 \dfrac{1}{81}=-2$
    Sec. 6.3

19. -2
    Sec. 6.3

20. $\dfrac{1}{2}$

    Sec. 6.3

21. 14

    Sec. 6.3

22. $y = e^x - 9$

    Sec. 6.3

23. 0.312

    Sec. 6.5

24. $4\log_3 x - \log_3 7 - \log_3 y$

    Sec. 6.5

25. $\dfrac{1}{4}\log_7 3 + \dfrac{1}{4}\log_7 x$

    Sec. 6.5

26. $\ln 192$

    Sec. 6.5

27. $\log \dfrac{64}{x^5}$

    Sec. 6.5

28. 1.730

    Sec. 6.5

29. $x = -2$

    Sec. 6.6

30. $x = 629$

    Sec. 6.6

31. $x = 8$

    Sec. 6.6

32. $x = -6$

    Sec. 6.6

33. $g(x) = -4^{x-5}$

    Sec. 6.4

34. $g(x) = \log_{1/6} 8x + 6$

    Sec. 6.4

35. $y = 0.6(5^x)$

    Sec. 6.7