

PRECALCULUS

Wed. Oct. 5

Sec. 3-1 pp. 166-168

Graph $g(x)$ only: 12, 13, 18, 20

Write equation of graph: 53, 54, 55

25, 31a, 39 (Given $k = -0.120968$), 41, 42,

a-d at right. (see answers on back for #35 & #41c)

Evaluate by hand: a) $(3^{-1} + 3^{-2})^{-1}$ b) $(27^{\frac{2}{3}} - 4^{-\frac{1}{2}})^{-1}$

Solve. c) $32^{x+2} = (\frac{1}{8})^{3x}$ d) $(\sqrt[4]{125})^x = (\frac{1}{25})^{2-x}$

Fri., Oct. 7

Sec. 3-2 pp. 178-180

Evaluate by hand: 2, 3-5, 8, 10, 13, 19,
20, 23, 24, a, b, c, d, e

Graphing Logs Handout

Sec. 3-4 pp. 196-197

61, 64, 65, 71, 78, 79, f, g, h

a) $\log_6 1$ b) $e^{2\ln 5}$ c) $8^{\log_8 47}$ d) $\ln e$ e) $\ln 1$

f) $\log_4 32 = x + 3$ g) $\log_{\sqrt[3]{7}} \frac{1}{49} = 2 - x$

h) $2 \log_6 4 - \frac{1}{4} \log_6 16 = \log_6 x$

Wed., Oct. 12

Sec. 3-4 pp. 196-197

36, 50, 55, 87 (graph & intersect), a, b, c, d

Handout on Applications of Exponential & Logarithmic Functions

Solve. Round to the nearest thousandth.

a) $2^{3-x} = 565$ b) $\ln \sqrt{x+2} = 1$ c) $5^{2x-7} = 1638$

d) $\frac{400}{1+e^{-x}} = 350$ e) $\ln x + \ln(x-5) = 7$

Fri., Oct. 14

Modeling Data with Regression Functions Handout

**Portfolio
Due**

Tues., Oct. 18

Review Exponential & Logarithmic Functions

Journal Due

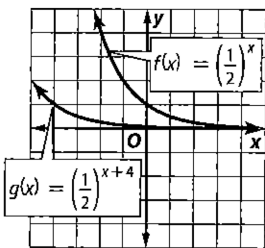
Thurs., Oct. 20

**Exponential &
Logarithmic Functions
Test**

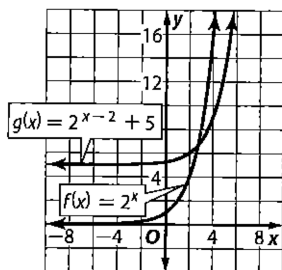
ANSWERS

Sec. 3-1 pp. 166-168

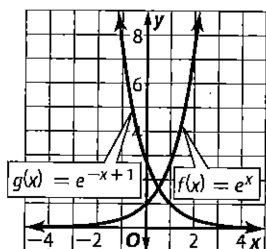
12.



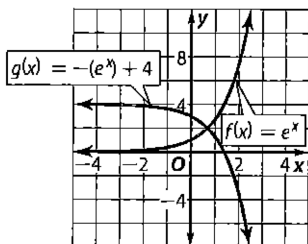
14.



18.



20.



35. a) 5.8%; $N = 1.19(1.058)^t$
 b) \$4.87; \$5.45
 c) during 2021
 d) Gasoline prices do not continuously rise. They fluctuate up & down with world oil prices.
41. a) 16,198 articles; 113% (Wikipedia???)
 b) 2006
 c) 16,193,193,554 (Is this model accurate? Not anymore. Growth of Wikipedia slowed down.)
42. a) 16.7% b) 0.166
54. $f(x) = 3(0.25)^{x+9} + 12$
 a) $\frac{9}{4}$ b) $\frac{2}{17}$ c) $-\frac{5}{7}$ d) $\frac{16}{5}$

Sec. 3-2 pp. 178-180

2. 1
 4. 1
 8. -2
 10. 2
 20. -12
 24. 3
 a. 0
 b. 25
 c. 47
 d. 1
 e. 0

Sec. 3-4 pp. 196-197

64. -1, 1
 78. 25
 f. -1/2
 g. 8
 h. 8
-
36. -2.28
 50. $\ln 10 \approx 2.30$
 a. -6.142
 b. 5.389
 c. 5.799
 d. 1.946
 e. 35.710

