

PRECALCULUS

Wednesday, Oct. 1

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 #41c)

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

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

Friday, Oct. 3

Sec. 3-2 pp. 178-180

Evaluate by hand: 3-5, 8, 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) $2 \log_6 4 - \frac{1}{4} \log_6 16 = \log_6 x$

Tuesday, Oct. 7

Sec. 3-4 pp. 196-197

36, 50, 55, 87 (graph & intersect), a-e

Solve. Round to the nearest thousandth.

a) $2^{3-x} = 565$ b) $\ln \sqrt{x+2} = 1$ c) $2^{4x-5} = 3^{x+7}$

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

Handout on Applications of Exponential & Logarithmic Functions

Thursday, Oct. 9

Modeling Data with Regression Functions Handout

(Only 5 problems – No Skips!)

Tuesday, Oct. 14

Review Exponential & Logarithmic Functions

Journal Due

Portfolio
Due

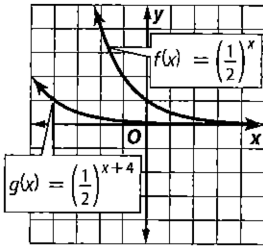
Thursday, Oct. 16

Exponential &
Logarithmic Functions
Test

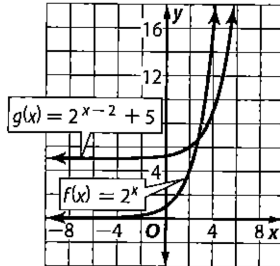
ANSWERS

Sec. 3-1 pp. 166-168

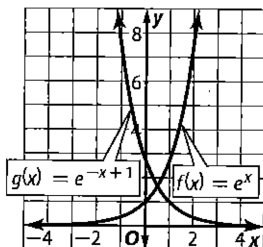
12.



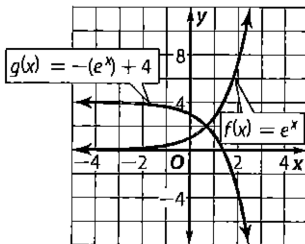
14.



18.



20.



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. 6.664

d. 1.946

e. 35

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) $\frac{16}{5}$

