Mathematical Concepts — Joysheet 1
MAT 117, Fall 2012 — D. Ivanšić

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Show all your work!

Use your calculator to compute each expression to 6 significant digits accuracy or six decimal places, whichever is more accurate. Write down the sequence of keys you entered in order to compute each expression. Do not round numbers in mid-computation.

1. (5pts) $\sqrt[7]{17} =$ 1.498910

Graphing calculator: 17 ^ (1/7) =

Scientific calculator: 17 [$\sqrt[x]{y}$] 7 =

2. (9pts) $2400\left(1+\frac{0.03}{12}\right)^{24} =$ 2548.216906

G: 2400 × (1 + 0.03 / 12) ^ 24 =

S: 1 + 0.03 / 12 = [y^x] 24 = × 2400 =

3. (7pts) $15(\sqrt[10]{3}-1) =$ 1.741848

G: 15 × (3 ^ (1/10) − 1) =

S: 3 [$\sqrt[x]{y}$] 10 = − 1 = × 15

4. (6pts) $\frac{\log 5.34}{\log 0.033} =$ −0.491089

G: log(5.34) / log(0.033) =

S: 5.34 [log] / 0.033 [log] =

5. (9pts) $\frac{\log 8.51}{12\log 3.59} =$ 0.139605

G: log(8.51) / (12 × log(3.59)) =

S: 8.51 [log] / [(] 12 × 3.59 [log] [)] =

6. (12pts) $\dfrac{\left(1+\frac{0.0425}{12}\right)^{60}-1}{\frac{0.0425}{12}} =$ 66.720536

G: (1 + 0.0425/12) ^ 60 − 1 = / (0.0425/12) =

S: 1 + 0.0425/12 = [y^x] 60 − 1 = / [(] 0.0425/12 [)] =

7. (12pts) $\dfrac{1-\left(1+\frac{0.03}{4}\right)^{-20}}{\frac{0.03}{4}} =$ 18.508020

G: 1 − (1 + 0.03/4) ^ (−) 20 = / (0.03/4) =

S: 1 − [(] 1 + 0.03/4 [)] [y^x] (−) 20 = / [(] 0.03/4 [)] =