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/m143.fa07/handouts143/t4-143_C19/REVSTUFF/review_suggestions_4.tex

1 This list is now in final form.

2 Our final exam is

Wednesday
12/19/07
at 10:30 AM
in our usual classroom.

3 One good review-starting tactic is to go through all the problem 9s in the sections we have covered. This probably won't hit all the topics of the course, but it will get you going. And will keep you from getting bogged down in any one section.

4 Chapter 1:

Compound interest: 4.1: 77.

Operations: page 131: 49, 51 (distributing minus signs);

1.4: 45, 47, 49, 51, 67, 69, 93a

Exponents: page 131: 21, 23, 25, 27;

Example: If $f(x) = 3 \cdot 4^{x/3}$, then $f(6) = 144$?

Factoring: page 131: 33, 43, 47.

Equations: 1.5: 25, 27, 43, 79, 81, 83;

4.4: 21 (parens!), 45, 47, 49;

3.4: 61, 63, 65

Non-linear inequalities: 1.7: 45, 49, 55, 57, 59;

3.1: 15, 17, 19, 29, 31

Lines: 2.2: 53;

Purple-page test: skip 3, 9, 14, and 22.

5 Chapter 2:

Domains: 2.1: 43, 51;

4.2: 61, 63.

Difference Quotients: **2.1:** 29, 31, 33, 35;

4.1: 43.

Example: if $f(x) = \ln(x)$, then the difference quotient can be expressed as $\ln \left(\left[1 + \frac{h}{x} \right]^{1/h} \right)$.

See also: [click here](#). With answer key [here](#).

Graphs of functions: **2.2:** 23, 25, 49.

The friendly-faces list on page 166 and the section 2.4 “moves”: **2.4:** 19, 21, 41, 43, 45;

3.6: 11, 25, 27;

Long division first 3.6: 29, 31;

4.1: 27, 29, 35;

4.3: 49, 51, 53, 55.

Graphing and ungraphing quadratic functions: **2.5:** 15, 17, 61, 63;

2.6: 23, 27.

Function composition: **2.7:** 19, 23, 25, 27.

Inverses and HLT: **2.8** 17, 23, 37, 39, 69;

Assignment #31

Purple-page test: 1-11.

6 Chapter 3:

Complex Arithmetic: 3.4: 17, 21, 27, 35, 37, 39

Factoring polynomials = Finding their zeros: 3.3: 3, 9, 39;

3.5: 37, 39, 47, 55.

Graphing Rational Functions 3.6: 45, 47, 53.

Purple-page test: 1-7, 8b, 9a-9d.

7 Chapter 4:

Laws of Logs and Exponents: 4.3: 66, 7, 23, 41, 47;

Example: $3 \cdot 4^{2-\log_4(9)} = 26/3$?

Example: $\ln(x) \Big|_{x=e(t-1)}^{x=e^5(t^2-2t+1)} = \ln(t-1) + 4$?

Example: The intercepts for $y = 2 - 3e^{-2x+5}$ are $(0, 2 - 3e^5)$ and $\left(\ln \left(\sqrt{\frac{3e^5}{2}} \right), 0 \right)$

Cooking up exponential models: 4.5 non-calculator problems: 7b, 9a, 15a

Purple-page test: skip 9.

7a needs no calculator,

7b needs no calculator,

7d needs no calculator,

and 7c needs a calculator only to approximate an exact algebraic answer.

8 Chapter 9:

Cramer's rule: 9.7: 29, 31, 33.

Gauss-Jordan elimination: 9.4: 17, 25, 27, 31.

Purple-page test: 1 by Cramer, 6, 7.