Math 335 Spring 2024

Tentative HW Assignments

HW 1 Due Tuesday 1/23

Section P.1, #1–6 all, 11–47 odd, 73, 77

Section P.3, #1-8 all, 9-17 odd, 23-39 odd, 47-59 odd, 69-72, 83-91 odd, 104

Section P.4, #1-8 all, 9-33 odd, 43-61 odd, 93-99 odd, 104

And these two questions:

- 1) Is 0 divided by 5 defined? If so, what is the number?
- 2) Is 5 divided by 0 defined? If so, what is the number?

HW 2 Due Tuesday 1/30

Section P.5, #1–4 all, 5, 7, 19, 21, 47–55 odd

Functions Supplement: #1-4, 9, 10, and find domains for 1, 11, 12, and 15

Section P.6, #1-6 all, 7-19 odd

Section 1.1, #1-6 all, 11-37 odd, 47-69 odd, and

- 1) A roller-skater travels 25 feet per second on skates with 76 mm diameter wheels. How many times to the wheels rotate per second? One foot equals about 305 mm.
- 2) The hour hand of a clock is 1.8 meters long. How fast does the tip move?
- 3) At 7:00, what is the angle between the hour and minute hand of a clock? How about at 7:30?
- 4) Find the time between 2:00 and 3:00 when the hour hand and minute hand line up. It's not 2:10.
- 5) The radius of the Earth is about 4000 miles. Find the linear speed of a point on the equator as the Earth rotates. Find the linear speed of a point at 30 degrees north.
- 6) How long does it take to wind up a 50-foot hose on a spool 10 inches in diameter if you turn the handle 3 times per second?

HW 3 Due Tuesday 2/6

Geometry Supplement, #1, 2a, 3-20, 24ab, 30, 33

Radicals Supplement, #9, 13, 17, 19, 28, 35, 36, 38, 45, 53

Section 1.3, #1–4 all, 5–33 odd, 37–41 odd, 59, 62, 63–67 odd, 73

Section 1.2, #1-4 all, 5-41 odd

Section 1.4, #1–8, 9–73 odd, 91, 92, 95, 97

HW 4 Due Tuesday 2/13

Section P.7, #1–10 Section P.8, #1-4, 11-55 odd Quadratics (Supp), #1–13 odd, 17, 18, 19 Base Graphs (Supp), #1, 2, 4, 5, 7, 9, 11, 15 Section P.2, #1-11 odd Systems Supplement, #1-15 odd

HW 5 Due Thursday 2/22

Applications Supplement, #1–4, 6, 12 Gauss-Jordan (Supp), #2, 6, 8 Section 1.5, #1-4, 5-11 odd, 25-51 odd, 65-71 odd, 79, 82, 85

HW 6 Due Thursday 2/29

Section 1.6, #1–14 all, 19, 21, 27, 33, 85, 91 Absolute Value Inequalities (Supp), #3, 5, 11, 13 Polynomial Inequalities (Supp), #1–9 (odd), 15 Rational Function Inequalities (Supp), #3, 7, 8, 11, 13 Section P.10, #9, 13, 19, 37, 39, 73, 77 Section 1.7, #1-4, 5-17 odd, 21-31 odd, 39, 41, 43, 51, 53, 55, 93, 95, 97, 101, 105

HW 7 Due Thursday 3/7

Section 1.8, #1-4, 5-55 odd (Some really good word problems, but there are a lot!) Trig Review (Supp), #1–20 all Rational Expressions (Supp), #1, 6, 11, 15, 30–37 all Complex Fractions (Supp), #1, 3, 7, 9–12 all, 14

HW 8 Due Tuesday 3/26

Section 2.1, #1-6, 7, 11, 13-18, 21-27 odd, 33-47 odd, 55, 57 Section 2.2, #9-35 odd, 40, 41 Section 2.4, #9, 11, 19, 41, 43, 47, 57, 68, 81, 82 Section 2.5, #21, 23, 33, 39, 41, 49-57 odd, and a) verify that all 3 forms of cos(2u) are equal

- b) derive cos(u/2) from cos(2u)
- c) verify at least one of the product-to-sum identities
- d) verify at least one of the sum-to-product identities

HW 9 Due Tuesday 4/2

Factoring (Supp) #1–4, 8, 9, 11, 13, 15 Section P.2, #9, 15, 23, 29, 37, 59, 67 Equation Review (Supp) #2, 5, 10, 11–16 Section 2.3, #13, 15, 19, 21, 25, 39, 71, 73 Section 3.1, #1–4, 5–13 odd, 17–29, 45, 49, 50, 55–57 all, 60, and solve the triangle: $A = 34^{\circ}$, a = 8 m, b = 10 m, and notice that there are 2 solutions

HW 10 Due Tuesday 4/9

Section 3.2, #1–4, 5–19 odd, 31–37 odd, 45, 48, 50, 51, 63, 66 Section 3.3, #1–8, 9–29 odd, 31a, 35a, 41, 43, 49, 51, 65, 68, 69, 81, 86 Section 3.4, #1–6, 7, 11, 23, 27, 31, 39, 51 and 55 (draw pictures for these two), 65!!! Identities (Supp), #1, 2, 4, 7, 8, 13, 15, 18

HW 11 Due Thursday 4/18

Section 4.1, #1–6, 23–55 by 4s, 67, 87, 93 Section 4.2, #21, 23, 33, 47, 51, 53 Section 4.3, #7–14 Section 4.4, #3, 4, 5, 15, 17, 27, 29, 53, 59 Section 4.5, #5, 17, 19, 23, 31, 37, 41

HW 12 Due Thursday 4/25

Section 5.1, #35, 49, 59, 63ab, 65 Section 5.2, #1, 2, 3, 7–13 odd, 15, 17, 49–55 odd, 84ab Section 5.3, #5, 9, 11, 19–27 odd, 41, 49, 57, 59, 69, 73 Section 5.5, #7, 9, 11, 21, 29, 31, 49, 51, 53

HW 13 Due Tuesday 5/7

Section 6.2, #9–13, 39, 45, 49 Section 6.3, #5–8, 9–17 odd, 35, 43, 53, 57 Section 6.4, #5–8, 21, 25, 29 Section 6.7, #1–4, 5–13 odd, 19–27 odd, 39–53 odd, 89, 97–103 odd Section 6.8, #23, 25, 27, 31, 43

HW 14 Due Tuesday 5/14

Section 6.9, #9–12, 13, 19, 23 Section P.9, #31–39 odd, 65 Difference Quotients (Supp), #1, 3, 8, 9, 10, and $f(x) = \sin x$ (see p. 251) and $g(x) = \cos x$