MATH 253 Section 501 – 503 P. Yasskin Fall 1996

Suggested Homework Problems

TEXT: **Calculus, Third Edition** — James Stewart, Brooks/Cole Publishing, 1995

^{M} = DO USING MAPLE
^{P} = PLOT IT or DO THE PLOTS USING MAPLE
$^{\surd}$ = CHECK USING MAPLE

Chapter 11. Three-Dimensional Geometry and Vectors

§11.1 # 3^{P}(Use spacecurve), 5^{P}, 7, 9, 10^{P}, 13^{P}(Use implicitplot), $17^{\surd}$(Use completesquare), 22^{P}, 25, 29, 31, 35, 36, 40, 41, 42, 45, 46, 47

§11.2 # 1^{P}(Use plot), 5^{P}(Use spacecurve), $7^{\surd}$, 9, $11^{\surd}$, $14^{\surd}$, 17, $20^{\surd}$, 21, 23, $24^{\surd}$, 27^{M}, 29, 31, $32^{\surd}$, 33, 34^{M}

§11.3 # 1, $4^{\surd}$(Use dot), 5, 7, $11^{\surd}$(Use dot & len), $14^{\surd}$, $15^{\surd}$, 17^{M}(Use angle), 21, $22^{\surd}$, 23, 27, $28^{\surd}$, 37, $39^{\surd}$, 41, 43, 45, $48^{\surd}$, 49, $50^{\surd}$, 51, 57^{P}(Use spacecurve)

§11.4 # 1, $4^{\surd}$(Use cross), 7, 8, 9, 10^{M}, 11, 19, $20^{\surd}$, 21, $24^{\surd}$, 25, $28^{\surd}$, 31, 32^{M}, 40

§11.5 # 1, 3^{P}(Use spacecurve), 5, 11, 13, 15, 17, $19^{\surd}$, $25^{\surd}$, $29^{\surd}$(Also give the parametric form.$^{\surd}$), 31(Also give the parametric form.), $35^{\surd}$, 37^{M}, 43, 47, $51^{\surd}$, 55, 63, 65

§11.6 # (Identify the surface and use Maple to plot these surfaces: 1, 2, 3, 4, 5, 6, 7, 9), 17-24, $29^{\surd}$(Use completesquare), $32^{\surd}$, 33, 39^{M}, 40^{M}, 41, 42, 43, 44

§11.7 # 1, 2, 3, 4, 5, 6, 7, 9, $10^{\surd}$(Use spacecurve), $12^{\surd}$, 15, 17^{M}, 18^{M}, 19^{M}, 20^{M}, 23, $25^{\surd}$, 27, $31^{\surd}$, $34^{\surd}$, 35, 37, 39^{P}(Use plot), 41, $44^{\surd}$, 45, 47, 49, 51^{M}, 53, $58^{\surd}$, 59, 61, $62^{\surd}$, 69, $70^{\surd}$, 74

§11.8 # 1, $2^{\surd}$, 3, $4^{\surd}$, 6^{M}, $7^{\surd}$, 11, $12^{\surd}$, 15, $17^{\surd}$, 19, 25^{M}, 31, 32^{M}, 33, 37, 41, 47^{M}, $48^{\surd}$, 49^{M}

§11.9 # 1, 3^{P}(Use plot), 5, 9, $12^{\surd}$, 13, 15, 17, 18^{M}, 19, 20, 23, $27^{\surd}$, $31^{\surd}$, 33

§11.10 # Skip until Chapter 13