

**MATE 3032 assignment 13: sections 12.1, 12.2, 12.3**

Section 12.1: do on your own exercises 1–11 p.796-797 of text. To hand in:

118. Exercise 12 p.796. Choose two coördinate planes and two coördinate axes.

119. Find an equation of the sphere passing through the point  $(4, 3, -1)$  and with centre  $(3, 0, 1)$ .

120. Choose two of the coördinate planes, and find the equations of the two spheres touching each of these planes, of centre  $(2, -3, 4)$ .

121. Exercise 43 p.797.

122. Choose four of exercises 25–38 p.797.

123. Exercises 44, 45 p.797.

Section 12.2: do on your own exercises 1–28 p.805. To hand in:

124. Exercise 31 p.805.

125. Exercise 38 p.806.

126. Exercise 39 p.806.

127. Exercise 42 p.806.

128. Exercises 47, 48 p.806.

129. Exercise 51 p.807.

In word problems, recall that you have to use words and figures to explain the steps.

Section 12.3: do on your own exercises 1–14 of text. To hand in:

130. Exercise 23 p.813.

131. Exercises 17, 27, 35, p.813.

132. Exercises 46, 47 p.813.

133. Exercise 58 p.814.