



**Figure 6.4**

p. 10 Just before Proposition 5 replace "SAS" with "SSS".

p. 12 line 4:  $\angle DCA > \angle ABC$

p. 19 line 1, replace "1.1.4" with "1.4.1".

p. 21 Exercise 10: Draw diagrams illustrating each of Hilbert's axioms.

p. 64 The second metric should be  $\frac{dx^2+dy^2}{y^2}$

p. 76 Exercise 7: Delete "in the upper half-plane".

p. 76 Exercise 8: Delete this exercise.

p. 78 Exercise 2: Add period.

p. 83 Replace Figure 6.4 with the one above.

p. 83 lines 1, 3: Replace  $(0, \pi - \alpha)$  with  $(0, \pi - \alpha - \beta)$ .

p. 83 line 2: Insert: For, as  $b$  approaches its lowest value, the radii of  $g$  and  $h(b)$  at  $B(b)$  form an angle  $\beta$  and must therefore have  $DA$  and  $FA$  as their limiting positions. Hence,  $\gamma(b)$  has  $\angle AFD = \pi - \alpha - \beta$  as its limiting value.

I am indebted to Dr. Wang Cheung for finding this error on page 83 and suggesting this proof.

p. 83 Exercise 7: Replace  $(2, 1)$  with  $(1, 2)$ .

p. 97 Replace Exercise 6 with : Figure 7.7 is formed by joining the midpoints of the sides of a hyperbolic equilateral triangle. Compare each pair of the angles  $\alpha, \beta$  and  $\gamma$ .

p. 108 Exercise 10: replace "Cosines" with "Sines".

p. 108 Exercise 19: Replace  $2\ln((1 + \sqrt{5}/2)2)$  with  $2\ln(1 + \sqrt{5}/2)$ .

p. 190 Exercises 2, 3: These exercises should have been listed in Section 13.2. The points  $z_1, z_2, z_3$  are distinct, as are  $w_1, w_2, w_3$ .

p. 193 Exercises 2: This exercise should have been listed in Section 13.2.

p. 244 Proof of Proposition 18. Let  $P$  be any point on a circle with center  $C$  and let  $T$  be any point distinct from  $P$  on the tangent at  $P$ . Since the point  $P$  must fall outside the circle, it follows that  $CT > CP$  so that  $CP$  is the shortest line from  $C$  to the tangent. Consequently, the tangent is perpendicular to  $CT$  (see Euclid's Book 1 Proposition 24).

p. 249 line 1: Omit left parenthesis.

p. 251 line 2: Replace "...oeff.." with "begriff".

p. 251 line 5: Giornale

p. 251 line 7: Replace "et" with "e".

p. 252: line 17 Replace "L" with "l"

p. 252: line 17: á

p. 252: line 17: Géométrie

p. 252 line 20: über

p. 252 Göttingen

p. 252 line -6 Über

p.252 line -6 Fälle

p.252 Reiher

p.252 line -4 Mathematik