

Exercise 1. *Describe the procedure for bisecting a given line segment using a compass and straightedge.*

Exercise 2. *Describe the procedure for bisecting a given angle using a compass and straightedge.*

Exercise 3. *Describe the procedure for constructing a perpendicular to a given line segment at a given point using a compass and straightedge.*

Exercise 4. *Describe the procedure for drawing a circle through three (non-collinear) given points using a compass and straightedge.*

Exercise 5. *Given line segments of lengths 1, ℓ_1 , and ℓ_2 , describe the procedures for constructing line segments of the following lengths using a compass and straightedge.*

(a) $\ell_1 + \ell_2$

(b) $|\ell_1 - \ell_2|$

(c) $\ell_1 \ell_2$

(d) ℓ_1 / ℓ_2

(e) $\sqrt{\ell_1}$