## Dummit & Foote Ch. 1.2: Dihedral Groups

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## 1. (1/23/23)

Compute the order of each of the elements in the following groups:

- (a)  $D_6$ 
  - $r, r^2$ : 3
  - $s, sr, sr^2$ : 2
- (b)  $D_8$ 
  - r: 4
  - $r^2$ : 2
  - $r^3$ : 4
  - $s, sr, sr^2, sr^3$ : 2
- (c)  $D_{10}$ 
  - $r, r^2, r^3, r^4$ : 5
  - $s, sr, sr^2, sr^3, sr^4$ : 2