

LATEX WORKSHEET

CCNY AWM

1. SECTION TITLE

1.1. **Subsection Title.** Some plain text. *Some italic text.* **Some bold text.**

- a) The first item.
- b) The second item.
 - The first item.
 - The second item

	col1	col2
row1	cell1	cell2
row2	cell3	cell4

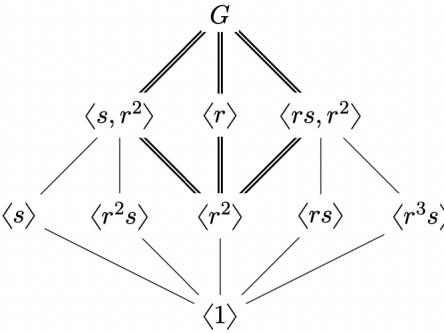


FIGURE 1. Lattice of quotient group $D_8/\langle r^2 \rangle$ highlighted on top of the lattice of D_8 .

$$\begin{array}{ccc}
 \mathcal{B} & \xrightarrow{\text{incl}} & \mathcal{F}\text{r}(\mathcal{B}) \\
 & \searrow \varphi & \downarrow \Phi \\
 & & M
 \end{array}$$

FIGURE 2. The universal property of free modules. (This diagram commutes!)

Theorem 1.1 (Theorem Name). *Theorem statement.*

Proof. A Proof. □

Definition (Term). Definition statement.

Here’s an inline math equation: $f : X \rightarrow Y$.

$$\begin{aligned}
 g &: X \rightarrow Y \\
 h &: X \rightarrow Y
 \end{aligned}$$

$$\begin{aligned}
 (a + b) + (c + d) &= ((a + b) + c) + d \\
 &= (a + (b + c)) + d \\
 &= a + ((b + c) + d) \\
 &= a + (b + (c + d))
 \end{aligned}$$

$$||a + b|| \leq ||a|| + ||b|| \tag{1}$$

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

$$f(x) = \begin{cases} 1, & \text{x rational} \\ 0, & \text{x irrational} \end{cases}$$

$$det(A) = \sum_{\sigma \in S_n} \text{sgn}(\sigma) \left(\prod_{i=1}^n \alpha_{i,\sigma(i)} \right)$$

Here’s an article citation. [1] Here’s a book citation with a specific section. [2, §1.1] Here’s a website citation. [3]

REFERENCES

- [1] A.Y. Okounkov A.M. Vershik. “A New Approach to the Representation Theory of the Symmetric Groups. II.” In: *J Math Sci* 131 (2005), pp. 5471–5494.
- [2] Emily Riehl. *Category Theory in Context*. Dover Publications, 2016. ISBN: 978-0486809038. URL: <https://math.jhu.edu/~eriehl/context/>.
- [3] Wikipedia. *Tensor product of modules*. URL: https://en.wikipedia.org/wiki/Tensor_product_of_modules#Modules_over_commutative_rings (visited on 12/22/2021).