- RELABELING: Changing all occurrences of a symbol a to a new symbol not already in the presentation, interchanging all occurrences of two symbols a and b, or interchanging all occurrences of a and a^{-1} for some $a \in S$.

- SUBDIVIDING: Replacing every occurrence of a by ae and every occurrence of a^{-1} by $e^{-1}a^{-1}$, where e is a new symbol not already in the presentation.

- CONSOLIDATING: If a and b always occur adjacent to each other either as ab or $b^{-1}a^{-1}$, replacing every occurrence of ab by a and every occurrence of $b^{-1}a^{-1}$ by a^{-1}, provided that the result is one or more words of length at least 3 or a single word of length 2.

- REFLECTING (Figure 6.18):
$$\langle S \mid a_1 \ldots a_m,\ W_2, \ldots, W_k \rangle \mapsto \langle S \mid a_m^{-1} \ldots a_1^{-1},\ W_2, \ldots, W_k \rangle.$$

- ROTATING (Figure 6.19):
$$\langle S \mid a_1 a_2 \ldots a_m,\ W_2, \ldots, W_k \rangle \mapsto \langle S \mid a_2 \ldots a_m a_1,\ W_2, \ldots, W_k \rangle.$$

- CUTTING (Figure 6.20): If W_1 and W_2 both have length at least 2,
$$\langle S \mid W_1 W_2,\ W_3, \ldots, W_k \rangle \mapsto \langle S, e \mid W_1 e,\ e^{-1} W_2,\ W_3, \ldots, W_k \rangle.$$

- PASTING (Figure 6.20):
$$\langle S, e \mid W_1 e,\ e^{-1} W_2,\ W_3, \ldots, W_k \rangle \mapsto \langle S \mid W_1 W_2,\ W_3, \ldots, W_k \rangle.$$

- FOLDING (Figure 6.21): If W_1 has length at least 3,
$$\langle S, e \mid W_1 e e^{-1},\ W_2, \ldots, W_k \rangle \mapsto \langle S \mid W_1,\ W_2, \ldots, W_k \rangle.$$

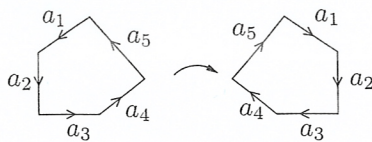We also allow W_1 to have length 2, provided that the presentation has only one word.

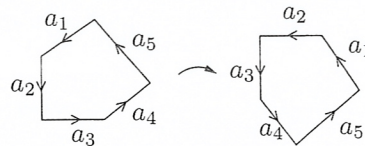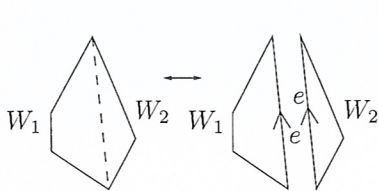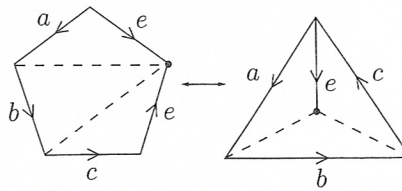FIGURE 6.18. Reflecting.

FIGURE 6.19. Rotating.

FIGURE 6.20. Cutting/pasting.

FIGURE 6.21. Folding/unfolding.