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[Continued from P. 318.]

$$(1/-1) = 1,$$
$$(-1/1) = 1,$$
$$(1/1) = 1.$$

The second entry of the Extended Jacobi Symbol is multiplicative by definition; it will be proved in the corollaries that both entries are also periodic.

The following results are easily derived:

Explicitly,

$$(0/1) = 1,$$
$$(0/b) = 0 \text{ if } b \neq 1,$$
$$(0/-b) = 0 \text{ if } -b \neq 1,$$
$$(2/\pm b) = (-1)^{(b^2-1)/8},$$
$$(-2/b) = (-1)^{(b^2+4b-5)/8},$$
$$(-2/-b) = (-1)^{(b^2-4b-5)/8}.$$

If $a \neq 0$, then

$$(-a^2/-1) = -1,$$
$$(-1/-b^2) = -1;$$
$$(-a/1) = 1,$$
$$(a/-1) = (a/-1) \text{ (see below)},$$
$$(-a/-1) = -(a/-1);$$

$$(1/b) = 1,$$
$$(-1/b) = (-1)^{(b-1)/2},$$
$$(1/-b) = 1,$$
$$(-1/-b) = (-1)^{(b+1)/2}.$$

[Continued on P. 324.]