

3.32 Direction A is a  $[33\bar{1}]$  direction, which determination is summarized as follows. We first of all position the origin of the coordinate system at the tail of the direction vector; then in terms of this new coordinate system

	$\underline{x}$	$\underline{y}$	$\underline{z}$
Projections	$a$	$b$	$-\frac{c}{3}$
Projections in terms of $a$ , $b$ , and $c$	1	1	$-\frac{1}{3}$
Reduction to integers	3	3	-1
Enclosure	$[33\bar{1}]$		

Direction B is a  $[\bar{4}0\bar{3}]$  direction, which determination is summarized as follows. We first of all position the origin of the coordinate system at the tail of the direction vector; then in terms of this new coordinate system

	$\underline{x}$	$\underline{y}$	$\underline{z}$
Projections	$-\frac{2a}{3}$	$0b$	$-\frac{c}{2}$
Projections in terms of $a$ , $b$ , and $c$	$-\frac{2}{3}$	0	$-\frac{1}{2}$
Reduction to integers	-4	0	-3
Enclosure	$[\bar{4}0\bar{3}]$		

Direction C is a  $[\bar{3}61]$  direction, which determination is summarized as follows. We first of all position the origin of the coordinate system at the tail of the direction vector; then in terms of this new coordinate system

	$\underline{x}$	$\underline{y}$	$\underline{z}$
Projections	$-\frac{a}{2}$	$b$	$\frac{c}{6}$
Projections in terms of $a$ , $b$ , and $c$	$-\frac{1}{2}$	1	$\frac{1}{6}$
Reduction to integers	-3	6	1
Enclosure	$[\bar{3}61]$		

Direction D is a  $[\bar{1}1\bar{1}]$  direction, which determination is summarized as follows. We first of all position the origin of the coordinate system at the tail of the direction vector; then in terms of this new coordinate system

	$\underline{x}$	$\underline{y}$	$\underline{z}$
Projections	$-\frac{a}{2}$	$\frac{b}{2}$	$-\frac{c}{2}$
Projections in terms of $a$ , $b$ , and $c$	$-\frac{1}{2}$	$\frac{1}{2}$	$-\frac{1}{2}$
Reduction to integers	-1	1	-1
Enclosure	$[\bar{1}1\bar{1}]$		