

# TABELA 14

## AZIMUTE DO SOL — NASCIMENTO E OCASO VERDADEIROS

LATITUDE	DECLINAÇÃO																LATITUDE
	0°		1°		2°		3°		4°		5°		6°		7°		
	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	
<b>0</b>	90.0	89.5	89.0	88.5	88.0	87.5	87.0	86.5	86.0	85.5	85.0	84.5	84.0	83.5	83.0	82.5	<b>0</b>
<b>5</b>	90.0	89.5	89.0	88.5	88.0	87.5	87.0	86.5	86.0	85.5	85.0	84.5	84.0	83.5	83.0	82.5	<b>5</b>
<b>10</b>	90.0	89.5	89.0	88.5	88.0	87.5	87.0	86.4	85.9	85.4	84.9	84.4	83.9	83.4	82.9	82.4	<b>10</b>
<b>4</b>	90.0	89.5	89.0	88.5	87.9	87.4	86.9	86.4	85.9	85.4	84.8	84.3	83.8	83.3	82.8	82.3	<b>4</b>
<b>8</b>	90.0	89.5	88.9	88.4	87.9	87.4	86.8	86.3	85.8	85.3	84.7	84.2	83.7	83.2	82.6	82.1	<b>8</b>
<b>20</b>	90.0	89.5	88.9	88.4	87.9	87.3	86.8	86.3	85.7	85.2	84.7	84.1	83.6	83.1	82.5	82.0	<b>20</b>
<b>2</b>	90.0	89.5	88.9	88.4	87.8	87.3	86.8	86.2	85.7	85.1	84.6	84.1	83.5	83.0	82.4	81.9	<b>2</b>
<b>4</b>	90.0	89.5	88.9	88.4	87.8	87.3	86.7	86.2	85.6	85.1	84.5	84.0	83.4	82.9	82.3	81.8	<b>4</b>
<b>6</b>	90.0	89.4	88.9	88.3	87.8	87.2	86.7	86.1	85.5	85.0	84.4	83.9	83.3	82.8	82.2	81.6	<b>6</b>
<b>8</b>	90.0	89.4	88.9	88.3	87.7	87.2	86.6	86.0	85.5	84.9	84.3	83.8	83.2	82.6	82.1	81.5	<b>8</b>
<b>30</b>	90.0	89.4	88.8	88.3	87.7	87.1	86.5	86.0	85.4	84.8	84.2	83.6	83.1	82.5	81.9	81.3	<b>30</b>
<b>1</b>	90.0	89.4	88.8	88.2	87.7	87.1	86.5	85.9	85.3	84.7	84.2	83.6	83.0	82.4	81.8	81.2	<b>1</b>
<b>2</b>	90.0	89.4	88.8	88.2	87.6	87.1	86.5	85.9	85.3	84.7	84.1	83.5	82.9	82.3	81.7	81.1	<b>2</b>
<b>3</b>	90.0	89.4	88.8	88.2	87.6	87.0	86.4	85.8	85.2	84.6	84.0	83.4	82.8	82.2	81.6	81.0	<b>3</b>
<b>4</b>	90.0	89.4	88.8	88.2	87.6	87.0	86.4	85.8	85.2	84.6	84.0	83.4	82.8	82.2	81.5	80.9	<b>4</b>
<b>5</b>	90.0	89.4	88.8	88.2	87.6	86.9	86.3	85.7	85.1	84.5	83.9	83.3	82.7	82.1	81.4	80.8	<b>5</b>
<b>6</b>	90.0	89.4	88.8	88.1	87.5	86.9	86.3	85.7	85.1	84.4	83.8	83.2	82.6	82.0	81.3	80.7	<b>6</b>
<b>7</b>	90.0	89.4	88.7	88.1	87.5	86.9	86.2	85.6	85.0	84.4	83.7	83.1	82.5	81.9	81.2	80.6	<b>7</b>
<b>8</b>	90.0	89.4	88.7	88.1	87.5	86.8	86.2	85.6	84.9	84.3	83.6	83.0	82.4	81.7	81.1	80.5	<b>8</b>
<b>9</b>	90.0	89.4	88.7	88.1	87.4	86.8	86.1	85.5	84.9	84.2	83.6	82.9	82.3	81.6	81.0	80.3	<b>9</b>
<b>40</b>	90.0	89.3	88.7	88.0	87.4	86.7	86.1	85.4	84.8	84.1	83.5	82.8	82.2	81.5	80.8	80.2	<b>40</b>
<b>1</b>	90.0	89.3	88.7	88.0	87.3	86.7	86.0	85.4	84.7	84.0	83.4	82.7	82.0	81.4	80.7	80.0	<b>1</b>
<b>2</b>	90.0	89.3	88.7	88.0	87.3	86.6	86.0	85.3	84.6	83.9	83.3	82.6	81.9	81.2	80.6	79.9	<b>2</b>
<b>3</b>	90.0	89.3	88.6	87.9	87.3	86.6	85.9	85.2	84.5	83.8	83.2	82.5	81.8	81.1	80.4	79.7	<b>3</b>
<b>4</b>	90.0	89.3	88.6	87.9	87.2	86.5	85.8	85.1	84.4	83.7	83.0	82.3	81.6	80.9	80.2	79.5	<b>4</b>
<b>5</b>	90.0	89.3	88.6	87.9	87.2	86.5	85.8	85.0	84.3	83.6	82.9	82.2	81.5	80.8	80.1	79.4	<b>5</b>
<b>6</b>	90.0	89.3	88.6	87.8	87.1	86.4	85.7	85.0	84.2	83.5	82.8	82.1	81.3	80.6	79.9	79.2	<b>6</b>
<b>7</b>	90.0	89.3	88.5	87.8	87.1	86.3	85.6	84.9	84.1	83.4	82.7	81.9	81.2	80.4	79.7	79.0	<b>7</b>
<b>8</b>	90.0	89.3	88.5	87.8	87.0	86.3	85.5	84.8	84.0	83.3	82.5	81.8	81.0	80.3	79.5	78.8	<b>8</b>
<b>9</b>	90.0	89.2	88.5	87.7	87.0	86.2	85.4	84.7	83.9	83.1	82.4	81.6	80.8	80.1	79.3	78.5	<b>9</b>
<b>50</b>	90.0	89.2	88.4	87.7	86.9	86.1	85.3	84.6	83.8	83.0	82.2	81.4	80.6	79.9	79.1	78.3	<b>50</b>
<b>1</b>	90.0	89.2	88.4	87.6	86.8	86.0	85.2	84.4	83.6	82.8	82.0	81.2	80.4	79.6	78.8	78.0	<b>1</b>
<b>2</b>	90.0	89.2	88.4	87.6	86.8	85.9	85.1	84.3	83.5	82.7	81.9	81.0	80.2	79.4	78.6	77.8	<b>2</b>
<b>3</b>	90.0	89.2	88.3	87.5	86.7	85.8	85.0	84.2	83.3	82.5	81.7	80.8	80.0	79.2	78.3	77.5	<b>3</b>
<b>4</b>	90.0	89.1	88.3	87.4	86.6	85.7	84.9	84.0	83.2	82.3	81.5	80.6	79.8	78.9	78.0	77.2	<b>4</b>
<b>5</b>	90.0	89.1	88.3	87.4	86.5	85.6	84.8	83.9	83.0	82.1	81.3	80.4	79.5	78.6	77.7	76.8	<b>5</b>
<b>6</b>	90.0	89.1	88.2	87.3	86.4	85.5	84.6	83.7	82.8	81.9	81.0	80.1	79.2	78.3	77.4	76.5	<b>6</b>
<b>7</b>	90.0	89.1	88.2	87.2	86.3	85.4	84.5	83.6	82.6	81.7	80.8	79.9	78.9	78.0	77.1	76.1	<b>7</b>
<b>8</b>	90.0	89.1	88.1	87.2	86.2	85.3	84.3	83.4	82.4	81.5	80.5	79.6	78.6	77.7	76.7	75.7	<b>8</b>
<b>9</b>	90.0	89.0	88.1	87.1	86.1	85.1	84.2	83.2	82.2	81.2	80.3	79.3	78.3	77.3	76.3	75.3	<b>9</b>
<b>60</b>	90.0	89.0	88.0	87.0	86.0	85.0	84.0	83.0	82.0	81.0	80.0	78.9	77.9	76.9	75.9	74.9	<b>60</b>
<b>1</b>	90.0	89.0	87.9	86.9	85.9	84.8	83.8	82.8	81.7	80.7	79.6	78.6	77.5	76.5	75.4	74.4	<b>1</b>
<b>2</b>	90.0	88.9	87.9	86.8	85.7	84.7	83.6	82.5	81.5	80.4	79.3	78.2	77.1	76.0	75.0	73.9	<b>2</b>
<b>3</b>	90.0	88.9	87.8	86.7	85.6	84.5	83.4	82.3	81.2	80.0	78.9	77.8	76.7	75.6	74.4	73.3	<b>3</b>
<b>4</b>	90.0	88.9	87.7	86.6	85.4	84.3	83.1	82.0	80.8	79.7	78.5	77.4	76.2	75.0	73.9	72.7	<b>4</b>
<b>5</b>	90.0	88.8	87.6	86.4	85.3	84.1	82.9	81.7	80.5	79.3	78.1	76.9	75.7	74.5	73.2	72.0	<b>5</b>
<b>6</b>	90.0	88.8	87.5	86.3	85.1	83.8	82.6	81.4	80.1	78.9	77.6	76.4	75.1	73.8	72.6	71.3	<b>6</b>
<b>7</b>	90.0	88.7	87.4	86.2	84.9	83.6	82.3	81.0	79.7	78.4	77.1	75.8	74.5	73.2	71.8	70.5	<b>7</b>
<b>8</b>	90.0	88.7	87.3	86.0	84.7	83.3	82.0	80.6	79.3	77.9	76.5	75.2	73.8	72.4	71.0	69.6	<b>8</b>
<b>9</b>	90.0	88.6	87.2	85.8	84.4	83.0	81.6	80.2	78.8	77.4	75.9	74.5	73.0	71.6	70.1	68.6	<b>9</b>
<b>70</b>	90.0	88.5	87.1	85.6	84.1	82.7	81.2	79.7	78.2	76.7	75.2	73.7	72.2	70.7	69.1	67.6	<b>70</b>
LAT.	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	LAT.
	0°		1°		2°		3°		4°		5°		6°		7°		

O azimute é do mesmo nome da declinação.

# TABELA 14

## AZIMUTE DO SOL — NASCIMENTO E OCASO VERDADEIROS

LATITUDE	DECLINAÇÃO															LATITUDE		
	7°		8°		9°		10°		11°		12°		13°		14°		15°	
	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'		00'	
<b>0</b>	82.5	82.0	81.5	81.0	80.5	80.0	79.5	79.0	78.5	78.0	77.5	77.0	76.5	76.0	75.5	75.0	<b>0</b>	
<b>5</b>	82.5	82.0	81.5	81.0	80.5	80.0	79.5	79.0	78.5	78.0	77.5	76.9	76.4	75.9	75.4	74.9	<b>5</b>	
<b>10</b>	82.4	81.9	81.4	80.9	80.4	79.8	79.3	78.8	78.3	77.8	77.3	76.8	76.3	75.8	75.3	74.8	<b>10</b>	
<b>4</b>	82.3	81.8	81.2	80.7	80.2	79.7	79.2	78.7	78.1	77.6	77.1	76.6	76.1	75.6	75.0	74.5	<b>4</b>	
<b>8</b>	82.1	81.6	81.1	80.5	80.0	79.5	79.0	78.4	77.9	77.4	76.8	76.3	75.8	75.3	74.7	74.2	<b>8</b>	
<b>20</b>	82.0	81.5	81.0	80.4	79.9	79.4	78.8	78.3	77.8	77.2	76.7	76.1	75.6	75.1	74.5	74.0	<b>20</b>	
<b>2</b>	81.9	81.4	80.8	80.3	79.7	79.2	78.7	78.1	77.6	77.0	76.5	76.0	75.4	74.9	74.3	73.8	<b>2</b>	
<b>4</b>	81.8	81.2	80.7	80.1	79.6	79.0	78.5	77.9	77.4	76.8	76.3	75.7	75.2	74.6	74.1	73.5	<b>4</b>	
<b>6</b>	81.6	81.1	80.5	80.0	79.4	78.9	78.3	77.7	77.2	76.6	76.1	75.5	74.9	74.4	73.8	73.3	<b>6</b>	
<b>8</b>	81.5	80.9	80.4	79.8	79.2	78.7	78.1	77.5	77.0	76.4	75.8	75.2	74.7	74.1	73.5	73.0	<b>8</b>	
<b>30</b>	81.3	80.8	80.2	79.6	79.0	78.4	77.9	77.3	76.7	76.1	75.5	74.9	74.4	73.8	73.2	72.6	<b>30</b>	
<b>1</b>	81.2	80.7	80.1	79.5	78.9	78.3	77.7	77.1	76.6	76.0	75.4	74.8	74.2	73.6	73.0	72.4	<b>1</b>	
<b>2</b>	81.1	80.6	80.0	79.4	78.8	78.2	77.6	77.0	76.4	75.8	75.2	74.6	74.0	73.4	72.8	72.2	<b>2</b>	
<b>3</b>	81.0	80.4	79.8	79.2	78.7	78.1	77.5	76.8	76.2	75.6	75.0	74.4	73.8	73.2	72.6	72.0	<b>3</b>	
<b>4</b>	80.9	80.3	79.7	79.1	78.5	77.9	77.3	76.7	76.1	75.5	74.9	74.3	73.6	73.0	72.4	71.8	<b>4</b>	
<b>5</b>	80.8	80.2	79.6	79.0	78.4	77.8	77.1	76.5	75.9	75.3	74.7	74.1	73.4	72.8	72.2	71.6	<b>5</b>	
<b>6</b>	80.7	80.1	79.5	78.9	78.2	77.6	77.0	76.4	75.7	75.1	74.5	73.9	73.2	72.6	72.0	71.3	<b>6</b>	
<b>7</b>	80.6	80.0	79.3	78.7	78.1	77.4	76.8	76.2	75.5	74.9	74.3	73.6	73.0	72.4	71.7	71.1	<b>7</b>	
<b>8</b>	80.5	79.8	79.2	78.5	77.9	77.3	76.6	76.0	75.3	74.7	74.1	73.4	72.8	72.1	71.5	70.8	<b>8</b>	
<b>9</b>	80.3	79.7	79.0	78.4	77.7	77.1	76.4	75.8	75.1	74.5	73.8	73.2	72.5	71.9	71.2	70.5	<b>9</b>	
<b>40</b>	80.2	79.5	78.9	78.2	77.6	76.9	76.2	75.6	74.9	74.3	73.6	72.9	72.3	71.6	70.9	70.3	<b>40</b>	
<b>1</b>	80.0	79.4	78.7	78.0	77.4	76.7	76.0	75.4	74.7	74.0	73.3	72.7	72.0	71.3	70.6	69.9	<b>1</b>	
<b>2</b>	79.9	79.2	78.5	77.8	77.2	76.5	75.8	75.1	74.4	73.8	73.1	72.4	71.7	71.0	70.3	69.6	<b>2</b>	
<b>3</b>	79.7	79.0	78.3	77.6	77.0	76.3	75.6	74.9	74.2	73.5	72.8	72.1	71.4	70.7	70.0	69.3	<b>3</b>	
<b>4</b>	79.5	78.8	78.1	77.4	76.7	76.0	75.3	74.6	73.9	73.2	72.5	71.8	71.1	70.3	69.6	68.9	<b>4</b>	
<b>5</b>	79.4	78.6	77.9	77.2	76.5	75.8	75.1	74.3	73.6	72.9	72.2	71.5	70.7	70.0	69.3	68.5	<b>5</b>	
<b>6</b>	79.2	78.4	77.7	77.0	76.3	75.5	74.8	74.1	73.3	72.6	71.8	71.1	70.4	69.6	68.9	68.1	<b>6</b>	
<b>7</b>	79.0	78.2	77.5	76.7	76.0	75.2	74.5	73.8	73.0	72.3	71.5	70.7	70.0	69.2	68.5	67.7	<b>7</b>	
<b>8</b>	78.8	78.0	77.2	76.5	75.7	75.0	74.2	73.4	72.7	71.9	71.1	70.4	69.6	68.8	68.0	67.2	<b>8</b>	
<b>9</b>	78.5	77.8	77.0	76.2	75.4	74.7	73.9	73.1	72.3	71.5	70.7	69.9	69.2	68.4	67.6	66.8	<b>9</b>	
<b>50</b>	78.3	77.5	76.7	75.9	75.1	74.3	73.5	72.7	71.9	71.1	70.3	69.5	68.7	67.9	67.1	66.3	<b>50</b>	
<b>1</b>	78.0	77.2	76.4	75.6	74.8	74.0	73.2	72.4	71.5	70.7	69.9	69.1	68.2	67.4	66.6	65.7	<b>1</b>	
<b>2</b>	77.8	76.9	76.1	75.3	74.4	73.6	72.8	71.9	71.1	70.3	69.4	68.6	67.7	66.9	66.0	65.1	<b>2</b>	
<b>3</b>	77.5	76.6	75.8	74.9	74.1	73.2	72.4	71.5	70.7	69.8	68.9	68.1	67.2	66.3	65.4	64.5	<b>3</b>	
<b>4</b>	77.2	76.3	75.4	74.6	73.7	72.8	71.9	71.1	70.2	69.3	68.4	67.5	66.6	65.7	64.8	63.9	<b>4</b>	
<b>5</b>	76.8	76.0	75.1	74.2	73.3	72.4	71.5	70.6	69.7	68.7	67.8	66.9	66.0	65.1	64.1	63.2	<b>5</b>	
<b>6</b>	76.5	75.6	74.7	73.8	72.8	71.9	71.0	70.0	69.1	68.2	67.2	66.3	65.3	64.4	63.4	62.4	<b>6</b>	
<b>7</b>	76.1	75.2	74.3	73.3	72.4	71.4	70.5	69.5	68.5	67.6	66.6	65.6	64.6	63.6	62.6	61.6	<b>7</b>	
<b>8</b>	75.7	74.8	73.8	72.8	71.9	70.9	69.9	68.9	67.9	66.9	65.9	64.9	63.9	62.8	61.8	60.8	<b>8</b>	
<b>9</b>	75.3	74.3	73.3	72.3	71.3	70.3	69.3	68.3	67.2	66.2	65.2	64.1	63.0	62.0	60.9	59.8	<b>9</b>	
<b>60</b>	74.9	73.8	72.8	71.8	70.7	69.7	68.6	67.6	66.5	65.4	64.3	63.3	62.2	61.1	59.9	58.8	<b>60</b>	
<b>1</b>	74.4	73.3	72.2	71.2	70.1	69.0	67.9	66.8	65.7	64.6	63.5	62.4	61.2	60.1	58.9	57.7	<b>1</b>	
<b>2</b>	73.9	72.8	71.6	70.5	69.4	68.3	67.2	66.0	64.9	63.7	62.5	61.4	60.2	59.0	57.8	56.5	<b>2</b>	
<b>3</b>	73.3	72.1	71.0	69.8	68.7	67.5	66.3	65.1	64.0	62.7	61.5	60.3	59.1	57.8	56.5	55.2	<b>3</b>	
<b>4</b>	72.7	71.5	70.3	69.1	67.9	66.7	65.4	64.2	62.9	61.7	60.4	59.1	57.8	56.5	55.2	53.8	<b>4</b>	
<b>5</b>	72.0	70.8	69.5	68.3	67.0	65.7	64.5	63.2	61.9	60.5	59.2	57.8	56.5	55.1	53.7	52.2	<b>5</b>	
<b>6</b>	71.3	70.0	68.7	67.4	66.1	64.7	63.4	62.0	60.6	59.3	57.9	56.4	55.0	53.5	52.0	50.5	<b>6</b>	
<b>7</b>	70.5	69.1	67.8	66.4	65.0	63.6	62.2	60.8	59.3	57.9	56.4	54.9	53.3	51.7	50.1	48.5	<b>7</b>	
<b>8</b>	69.6	68.2	66.8	65.3	63.9	62.4	60.9	59.4	57.8	56.3	54.7	53.1	51.5	49.8	48.1	46.3	<b>8</b>	
<b>9</b>	68.6	67.1	65.6	64.1	62.6	61.0	59.4	57.8	56.2	54.5	52.8	51.1	49.4	47.5	45.7	43.8	<b>9</b>	
<b>70</b>	67.6	66.0	64.4	62.8	61.1	59.5	57.8	56.1	54.3	52.6	50.7	48.9	47.0	45.0	42.9	40.8	<b>70</b>	
LAT.	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	30'	00'	LAT.	
	7°	8°		9°		10°		11°		12°		13°		14°		15°		

O azimute é do mesmo nome da declinação.

**TABELA 14**  
**AZIMUTE DO SOL — NASCIMENTO E OCASO VERDADEIROS**

<b>LATITUDE</b>	<b>DECLINAÇÃO</b>															<b>LATITUDE</b>	
	<b>15°</b>			<b>16°</b>			<b>17°</b>			<b>18°</b>			<b>19°</b>				<b>20°</b>
	00'	20'	40'	00'	20'	40'	00'	20'	40'	00'	20'	40'	00'	20'	40'		00'
<b>0</b>	75.0	74.7	74.3	74.0	73.7	73.3	73.0	72.7	72.3	72.0	71.7	71.3	71.0	70.7	70.3	70.0	<b>0</b>
<b>5</b>	74.9	74.6	74.3	73.9	73.6	73.3	72.9	72.6	72.3	71.9	71.6	71.3	70.9	70.6	70.3	69.9	<b>5</b>
<b>10</b>	74.8	74.4	74.1	73.7	73.4	73.1	72.7	72.4	72.1	71.7	71.4	71.0	70.7	70.4	70.0	69.7	<b>10</b>
<b>4</b>	74.5	74.2	73.8	73.5	73.2	72.8	72.5	72.1	71.8	71.4	71.1	70.7	70.4	70.1	69.7	69.4	<b>4</b>
<b>8</b>	74.2	73.9	73.5	73.2	72.8	72.4	72.1	71.7	71.4	71.0	70.7	70.3	70.0	69.6	69.3	68.9	<b>8</b>
<b>20</b>	74.0	73.7	73.3	72.9	72.6	72.2	71.9	71.5	71.2	70.8	70.4	70.1	69.7	69.4	69.0	68.7	<b>20</b>
<b>2</b>	73.8	73.4	73.1	72.7	72.3	72.0	71.6	71.3	70.9	70.5	70.2	69.8	69.4	69.1	68.7	68.4	<b>2</b>
<b>4</b>	73.5	73.2	72.8	72.4	72.1	71.7	71.3	71.0	70.6	70.2	69.9	69.5	69.1	68.8	68.4	68.0	<b>4</b>
<b>6</b>	73.3	72.9	72.5	72.1	71.8	71.4	71.0	70.6	70.3	69.9	69.5	69.1	68.8	68.4	68.0	67.6	<b>6</b>
<b>8</b>	73.0	72.6	72.2	71.8	71.4	71.0	70.7	70.3	69.9	69.5	69.1	68.7	68.4	68.0	67.6	67.2	<b>8</b>
<b>30</b>	72.6	72.2	71.8	71.4	71.1	70.7	70.3	69.9	69.5	69.1	68.7	68.3	67.9	67.5	67.1	66.7	<b>30</b>
<b>1</b>	72.4	72.0	71.6	71.2	70.8	70.5	70.1	69.7	69.3	68.9	68.5	68.1	67.7	67.3	66.9	66.5	<b>1</b>
<b>2</b>	72.2	71.8	71.4	71.0	70.6	70.2	69.8	69.4	69.0	68.6	68.2	67.8	67.4	67.0	66.6	66.2	<b>2</b>
<b>3</b>	72.0	71.6	71.2	70.8	70.4	70.0	69.6	69.2	68.8	68.4	68.0	67.6	67.2	66.7	66.3	65.9	<b>3</b>
<b>4</b>	71.8	71.4	71.0	70.6	70.2	69.8	69.3	68.9	68.5	68.1	67.7	67.3	66.9	66.5	66.0	65.6	<b>4</b>
<b>5</b>	71.6	71.2	70.8	70.3	69.9	69.5	69.1	68.7	68.3	67.8	67.4	67.0	66.6	66.2	65.7	65.3	<b>5</b>
<b>6</b>	71.3	70.9	70.5	70.1	69.7	69.2	68.8	68.4	68.0	67.5	67.1	66.7	66.3	65.8	65.4	65.0	<b>6</b>
<b>7</b>	71.1	70.7	70.2	69.8	69.4	69.0	68.5	68.1	67.7	67.2	66.8	66.4	65.9	65.5	65.1	64.6	<b>7</b>
<b>8</b>	70.8	70.4	70.0	69.5	69.1	68.7	68.2	67.8	67.3	66.9	66.5	66.0	65.6	65.2	64.7	64.3	<b>8</b>
<b>9</b>	70.5	70.1	69.7	69.2	68.8	68.3	67.9	67.5	67.0	66.6	66.1	65.7	65.2	64.8	64.3	63.9	<b>9</b>
<b>40</b>	70.3	69.8	69.4	68.9	68.5	68.0	67.6	67.1	66.7	66.2	65.8	65.3	64.8	64.4	63.9	63.5	<b>40</b>
<b>1</b>	69.9	69.5	69.0	68.6	68.1	67.7	67.2	66.7	66.3	65.8	65.4	64.9	64.4	64.0	63.5	63.1	<b>1</b>
<b>2</b>	69.6	69.2	68.7	68.2	67.8	67.3	66.8	66.4	65.9	65.4	65.0	64.5	64.0	63.5	63.1	62.6	<b>2</b>
<b>3</b>	69.3	68.8	68.3	67.9	67.4	66.9	66.4	66.0	65.5	65.0	64.5	64.0	63.6	63.1	62.6	62.1	<b>3</b>
<b>4</b>	68.9	68.4	68.0	67.5	67.0	66.5	66.0	65.5	65.0	64.6	64.1	63.6	63.1	62.6	62.1	61.6	<b>4</b>
<b>5</b>	68.5	68.0	67.5	67.1	66.6	66.1	65.6	65.1	64.6	64.1	63.6	63.1	62.6	62.1	61.6	61.1	<b>5</b>
<b>6</b>	68.1	67.6	67.1	66.6	66.1	65.6	65.1	64.6	64.1	63.6	63.1	62.6	62.1	61.5	61.0	60.5	<b>6</b>
<b>7</b>	67.7	67.2	66.7	66.2	65.6	65.1	64.6	64.1	63.6	63.1	62.5	62.0	61.5	61.0	60.4	59.9	<b>7</b>
<b>8</b>	67.2	66.7	66.2	65.7	65.1	64.6	64.1	63.6	63.0	62.5	62.0	61.4	60.9	60.3	59.8	59.3	<b>8</b>
<b>9</b>	66.8	66.2	65.7	65.2	64.6	64.1	63.5	63.0	62.4	61.9	61.4	60.8	60.2	59.7	59.1	58.6	<b>9</b>
<b>50</b>	66.3	65.7	65.2	64.6	64.1	63.5	62.9	62.4	61.8	61.3	60.7	60.1	59.6	59.0	58.4	57.9	<b>50</b>
<b>1</b>	65.7	65.2	64.6	64.0	63.5	62.9	62.3	61.7	61.2	60.6	60.0	59.4	58.8	58.3	57.7	57.1	<b>1</b>
<b>2</b>	65.1	64.6	64.0	63.4	62.8	62.2	61.6	61.1	60.5	59.9	59.3	58.7	58.1	57.5	56.9	56.3	<b>2</b>
<b>3</b>	64.5	63.9	63.3	62.7	62.1	61.5	60.9	60.3	59.7	59.1	58.5	57.9	57.2	56.6	56.0	55.4	<b>3</b>
<b>4</b>	63.9	63.3	62.7	62.0	61.4	60.8	60.2	59.5	58.9	58.3	57.6	57.0	56.4	55.7	55.1	54.4	<b>4</b>
<b>5</b>	63.2	62.5	61.9	61.3	60.6	60.0	59.4	58.7	58.1	57.4	56.7	56.1	55.4	54.7	54.1	53.4	<b>5</b>
<b>6</b>	62.4	61.8	61.1	60.5	59.8	59.1	58.5	57.8	57.1	56.5	55.8	55.1	54.4	53.7	53.0	52.3	<b>6</b>
<b>7</b>	61.6	61.0	60.3	59.6	58.9	58.2	57.5	56.8	56.1	55.4	54.7	54.0	53.3	52.6	51.8	51.1	<b>7</b>
<b>8</b>	60.8	60.1	59.4	58.7	57.9	57.2	56.5	55.8	55.1	54.3	53.6	52.8	52.1	51.3	50.6	49.8	<b>8</b>
<b>9</b>	59.8	59.1	58.4	57.6	56.9	56.2	55.4	54.7	53.9	53.1	52.4	51.6	50.8	50.0	49.2	48.4	<b>9</b>
<b>60</b>	58.8	58.1	57.3	56.5	55.8	55.0	54.2	53.4	52.6	51.8	51.0	50.2	49.4	48.5	47.7	46.8	<b>60</b>
<b>1</b>	57.7	56.9	56.2	55.4	54.5	53.7	52.9	52.1	51.2	50.4	49.5	48.7	47.8	46.9	46.0	45.1	<b>1</b>
<b>2</b>	56.5	55.7	54.9	54.0	53.2	52.3	51.5	50.6	49.7	48.8	47.9	47.0	46.1	45.2	44.2	43.2	<b>2</b>
<b>3</b>	55.2	54.4	53.5	52.6	51.7	50.8	49.9	49.0	48.1	47.1	46.1	45.2	44.2	43.2	42.2	41.1	<b>3</b>
<b>4</b>	53.8	52.9	52.0	51.0	50.1	49.1	48.2	47.2	46.2	45.2	44.1	43.1	42.0	41.0	39.9	38.7	<b>4</b>
<b>5</b>	52.2	51.3	50.3	49.3	48.3	47.3	46.2	45.2	44.1	43.0	41.9	40.8	39.6	38.4	37.2	36.0	<b>5</b>
<b>6</b>	50.5	49.4	48.4	47.3	46.3	45.2	44.0	42.9	41.7	40.6	39.3	38.1	36.8	35.5	34.2	32.8	<b>6</b>
<b>7</b>	48.5	47.4	46.3	45.1	44.0	42.8	41.6	40.3	39.0	37.7	36.4	35.0	33.6	32.1	30.5	28.9	<b>7</b>
<b>8</b>	46.3	45.1	43.9	42.6	41.3	40.0	38.7	37.3	35.9	34.4	32.9	31.3	29.6	27.9	26.1	24.1	<b>8</b>
<b>9</b>	43.8	42.4	41.1	39.7	38.3	36.8	35.3	33.8	32.1	30.4	28.6	26.7	24.7	22.5	20.1	17.4	<b>9</b>
<b>70</b>	40.8	39.4	37.9	36.3	34.7	33.0	31.3	29.4	27.5	25.4	23.1	20.6	17.8	14.5	10.3	*	<b>70</b>
<b>LAT.</b>	00'	20'	40'	00'	20'	40'	00'	20'	40'	00'	20'	40'	00'	20'	40'	00'	<b>LAT.</b>
	<b>15°</b>			<b>16°</b>			<b>17°</b>			<b>18°</b>			<b>19°</b>			<b>20°</b>	

O azimute é do mesmo nome da declinação.

# TABELA 14

## AZIMUTE DO SOL — NASCIMENTO E OCASO VERDADEIROS

LATITUDE	DECLINAÇÃO															LATITUDE
	20°				21°				22°				23°			
	00'	15'	30'	45'	00'	15'	30'	45'	00'	15'	30'	45'	00'	15'	30'	
<b>0</b>	70.0	69.8	69.5	69.2	69.0	68.8	68.5	68.2	68.0	67.7	67.5	67.2	67.0	66.7	66.5	<b>0</b>
<b>5</b>	69.9	69.7	69.4	69.2	68.9	68.7	68.4	68.2	67.9	67.7	67.4	67.2	66.9	66.7	66.4	<b>5</b>
<b>10</b>	69.7	69.4	69.2	68.9	68.7	68.4	68.2	67.9	67.6	67.4	67.1	66.9	66.6	66.4	66.1	<b>10</b>
<b>4</b>	69.4	69.1	68.8	68.6	68.3	68.1	67.8	67.5	67.3	67.0	66.8	66.5	66.3	66.0	65.7	<b>4</b>
<b>8</b>	68.9	68.7	68.4	68.1	67.9	67.6	67.3	67.1	66.8	66.5	66.3	66.0	65.7	65.5	65.2	<b>8</b>
<b>20</b>	68.7	68.4	68.1	67.9	67.6	67.3	67.0	66.8	66.5	66.2	66.0	65.7	65.4	65.2	64.9	<b>20</b>
<b>2</b>	68.4	68.1	67.8	67.5	67.3	67.0	66.7	66.4	66.2	65.9	65.6	65.3	65.1	64.8	64.5	<b>2</b>
<b>4</b>	68.0	67.7	67.5	67.2	66.9	66.6	66.3	66.1	65.8	65.5	65.2	65.0	64.7	64.4	64.1	<b>4</b>
<b>6</b>	67.6	67.4	67.1	66.8	66.5	66.2	65.9	65.7	65.4	65.1	64.8	64.5	64.2	63.9	63.7	<b>6</b>
<b>8</b>	67.2	66.9	66.6	66.3	66.1	65.8	65.5	65.2	64.9	64.6	64.3	64.0	63.7	63.4	63.2	<b>8</b>
<b>30</b>	66.7	66.4	66.1	65.9	65.6	65.3	65.0	64.7	64.4	64.1	63.8	63.5	63.2	62.9	62.6	<b>30</b>
<b>1</b>	66.5	66.2	65.9	65.6	65.3	65.0	64.7	64.4	64.1	63.8	63.5	63.2	62.9	62.6	62.3	<b>1</b>
<b>2</b>	66.2	65.9	65.6	65.3	65.0	64.7	64.4	64.1	63.8	63.5	63.2	62.9	62.6	62.3	62.0	<b>2</b>
<b>3</b>	66.9	65.6	65.3	65.0	64.7	64.4	64.1	63.8	63.5	63.2	62.9	62.5	62.2	61.9	61.6	<b>3</b>
<b>4</b>	66.6	65.3	65.0	64.7	64.4	64.1	63.8	63.5	63.1	62.8	62.5	62.2	61.9	61.6	61.3	<b>4</b>
<b>5</b>	65.3	65.0	64.7	64.4	64.1	63.7	63.4	63.1	62.8	62.5	62.1	61.8	61.5	61.2	60.9	<b>5</b>
<b>6</b>	65.0	64.7	64.3	64.0	63.7	63.4	63.1	62.7	62.4	62.1	61.8	61.4	61.1	60.8	60.5	<b>6</b>
<b>7</b>	64.6	64.3	64.0	63.7	63.3	63.0	62.7	62.4	62.0	61.7	61.4	61.0	60.7	60.4	60.0	<b>7</b>
<b>8</b>	64.3	63.9	63.6	63.3	62.9	62.6	62.3	61.9	61.6	61.3	60.9	60.6	60.3	59.9	59.6	<b>8</b>
<b>9</b>	63.9	63.6	63.2	62.9	62.5	62.2	61.9	61.5	61.2	60.8	60.5	60.2	59.8	59.5	59.1	<b>9</b>
<b>40</b>	63.5	63.1	62.8	62.5	62.1	61.8	61.4	61.1	60.7	60.4	60.0	59.7	59.3	59.0	58.6	<b>40</b>
<b>1</b>	63.1	62.7	62.4	62.0	61.7	61.3	60.9	60.6	60.2	59.9	59.5	59.2	58.8	58.5	58.1	<b>1</b>
<b>2</b>	62.6	62.2	61.9	61.5	61.2	60.8	60.5	60.1	59.7	59.4	59.0	58.6	58.3	57.9	57.5	<b>2</b>
<b>3</b>	62.1	61.8	61.4	61.0	60.7	60.3	59.9	59.6	59.2	58.8	58.4	58.1	57.7	57.3	57.0	<b>3</b>
<b>4</b>	61.6	61.2	60.9	60.5	60.1	59.7	59.4	59.0	58.6	58.2	57.9	57.5	57.1	56.7	56.3	<b>4</b>
<b>5</b>	61.1	60.7	60.3	59.9	59.5	59.2	58.8	58.4	58.0	57.6	57.2	56.8	56.5	56.1	55.7	<b>5</b>
<b>6</b>	60.5	60.1	59.7	59.3	58.9	58.6	58.2	57.8	57.4	57.0	56.6	56.2	55.8	55.4	55.0	<b>6</b>
<b>7</b>	59.9	59.5	59.1	58.7	58.3	57.9	57.5	57.1	56.7	56.3	55.9	55.5	55.0	54.6	54.2	<b>7</b>
<b>8</b>	59.3	58.9	58.4	58.0	57.6	57.2	56.8	56.4	56.0	55.5	55.1	54.7	54.3	53.8	53.4	<b>8</b>
<b>9</b>	58.6	58.2	57.7	57.3	56.9	56.5	56.0	55.6	55.2	54.7	54.3	53.9	53.4	53.0	52.6	<b>9</b>
<b>50</b>	57.9	57.4	57.0	56.6	56.1	55.7	55.2	54.8	54.4	53.9	53.5	53.0	52.6	52.1	51.7	<b>50</b>
<b>1</b>	57.1	56.6	56.2	55.7	55.3	54.8	54.4	53.9	53.5	53.0	52.5	52.1	51.6	51.2	50.7	<b>1</b>
<b>2</b>	56.3	55.8	55.3	54.9	54.4	53.9	53.5	53.0	52.5	52.0	51.6	51.1	50.6	50.1	49.6	<b>2</b>
<b>3</b>	55.4	54.9	54.4	53.9	53.5	53.0	52.5	52.0	51.5	51.0	50.5	50.0	49.5	49.0	48.5	<b>3</b>
<b>4</b>	54.4	53.9	53.4	52.9	52.4	51.9	51.4	50.9	50.4	49.9	49.4	48.9	48.3	47.8	47.3	<b>4</b>
<b>5</b>	53.4	52.9	52.4	51.9	51.3	50.8	50.3	49.8	49.2	48.7	48.1	47.6	47.1	46.5	46.0	<b>5</b>
<b>6</b>	52.3	51.8	51.2	50.7	50.1	49.6	49.0	48.5	47.9	47.4	46.8	46.2	45.7	45.1	44.5	<b>6</b>
<b>7</b>	51.1	50.5	50.0	49.4	48.9	48.3	47.7	47.1	46.5	46.0	45.4	44.8	44.2	43.5	42.9	<b>7</b>
<b>8</b>	49.8	49.2	48.6	48.0	47.4	46.8	46.2	45.6	45.0	44.4	43.8	43.1	42.5	41.8	41.2	<b>8</b>
<b>9</b>	48.4	47.8	47.2	46.5	45.9	45.3	44.6	44.0	43.3	42.7	42.0	41.3	40.7	40.0	39.3	<b>9</b>
<b>60</b>	46.8	46.2	45.5	44.9	44.2	43.5	42.9	42.2	41.5	40.8	40.1	39.3	38.6	37.9	37.1	<b>60</b>
<b>1</b>	45.1	44.4	43.8	43.0	42.3	41.6	40.9	40.2	39.4	38.6	37.9	37.1	36.3	35.5	34.7	<b>1</b>
<b>2</b>	43.2	42.5	41.8	41.0	40.2	39.5	38.7	37.9	37.1	36.2	35.4	34.5	33.7	32.8	31.9	<b>2</b>
<b>3</b>	41.1	40.3	39.5	38.7	37.9	37.0	36.2	35.3	34.4	33.5	32.5	31.6	30.6	29.6	28.6	<b>3</b>
<b>4</b>	38.7	37.9	37.0	36.1	35.2	34.2	33.3	32.3	31.3	30.3	29.2	28.1	27.0	25.8	24.5	<b>4</b>
<b>5</b>	36.0	35.0	34.0	33.0	32.0	31.0	29.9	28.7	27.6	26.4	25.1	23.8	22.4	20.9	19.3	<b>5</b>
<b>6</b>	32.8	31.7	30.6	29.4	28.2	27.0	25.7	24.3	22.9	21.4	19.8	18.1	16.1	13.9	11.4	<b>6</b>
<b>7</b>	28.9	27.6	26.3	24.9	23.5	21.9	20.3	18.5	16.5	14.3	11.6	8.2	**	.	.	<b>7</b>
<b>8</b>	24.1	22.5	20.8	19.0	16.9	14.6	11.9	8.4	**	.	.	.	.	.	.	<b>8</b>
<b>9</b>	17.4	15.0	12.3	8.7	**	.	.	.	.	.	.	.	.	.	.	<b>9</b>
<b>70</b>	**	.	.	.	.	.	.	.	.	.	.	.	.	.	.	<b>70</b>
LAT.	00'	15'	30'	45'	00'	15'	30'	45'	00'	15'	30'	45'	00'	15'	30'	LAT.
	20°				21°				22°				23°			

O azimute é do mesmo nome da declinação.

\* O sol é circumpolar visível ou invisível.

\*\* O sol rasa o horizonte.