

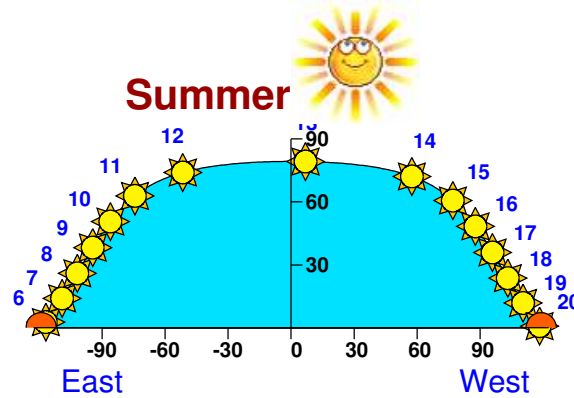
# Sun Calendar 2018

Produced by *ScientiDev*  
www.scientidev.fr

Pasadena

-118.14°E, 34.14°N

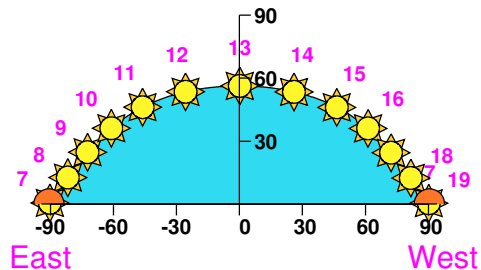
Summer



June 21

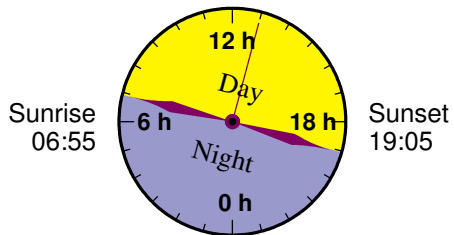


Spring



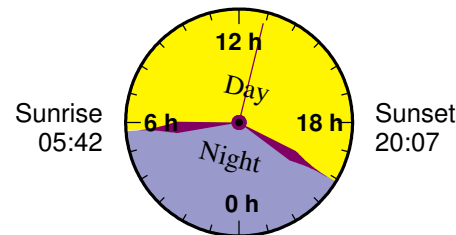
March 21

Day duration 12:10



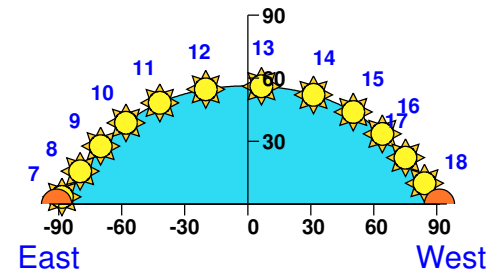
Spring Equinox

Day duration 14:26



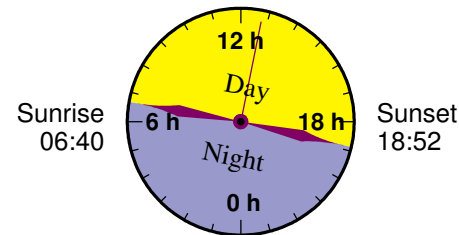
Summer Solstice

Autumn



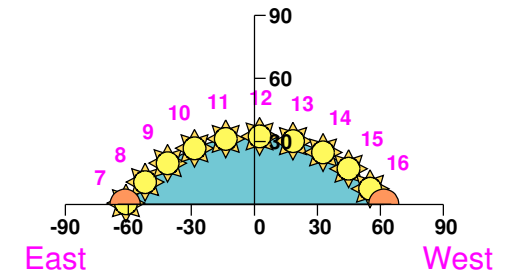
Sept. 21

Day duration 12:12



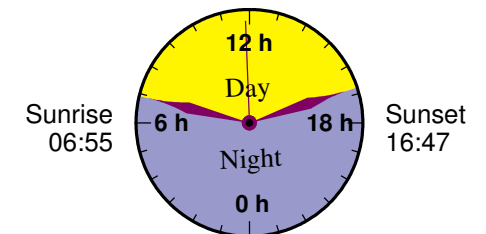
Autumn Equinox

Winter



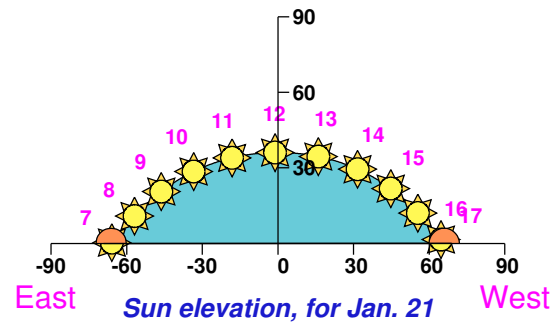
Dec. 21

Day duration 9:52

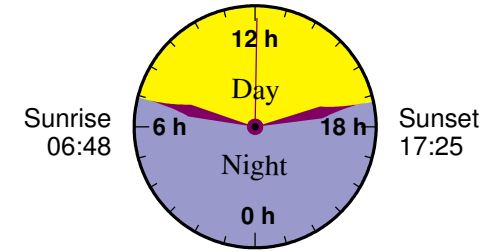


Winter Solstice

# January 2018



Pasadena  
-118.14°E, 34.14°N

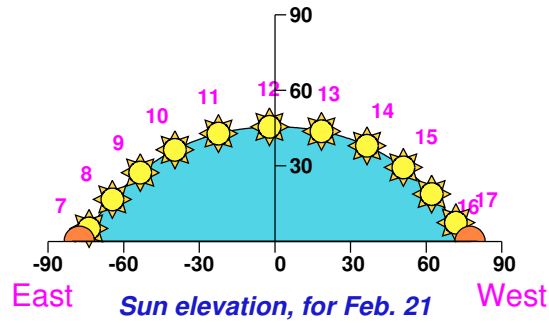


*Duration of the day, for January 21*

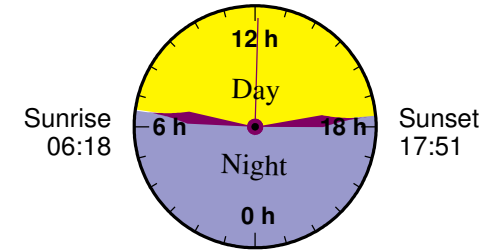
Sunrise and Sunset at Pasadena (TL  $\pm 1$  mn) and sun maximal elevation (°)

|   | Monday                                                 | Tuesday                                                | Wednesday                                              | Thursday                                               | Friday                                                 | Saturday                                               | Sunday                                                 |
|---|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| 1 | <b>1</b> 1 - 364<br>06:59 - 16:54 33°<br><div></div>   | <b>2</b> 2 - 363<br>06:59 - 16:54 33°<br><div></div>   | <b>3</b> 3 - 362<br>06:59 - 16:55 33°<br><div></div>   | <b>4</b> 4 - 361<br>06:59 - 16:56 33°<br><div></div>   | <b>5</b> 5 - 360<br>06:59 - 16:57 33°<br><div></div>   | <b>6</b> 6 - 359<br>06:59 - 16:58 33°<br><div></div>   | <b>7</b> 7 - 358<br>06:59 - 16:58 34°<br><div></div>   |
| 2 | <b>8</b> 8 - 357<br>06:59 - 16:59 34°<br><div></div>   | <b>9</b> 9 - 356<br>06:59 - 17:00 34°<br><div></div>   | <b>10</b> 10 - 355<br>06:59 - 17:01 34°<br><div></div> | <b>11</b> 11 - 354<br>06:59 - 17:02 34°<br><div></div> | <b>12</b> 12 - 353<br>06:59 - 17:03 34°<br><div></div> | <b>13</b> 13 - 352<br>06:59 - 17:04 35°<br><div></div> | <b>14</b> 14 - 351<br>06:58 - 17:05 35°<br><div></div> |
| 3 | <b>15</b> 15 - 350<br>06:58 - 17:06 35°<br><div></div> | <b>16</b> 16 - 349<br>06:58 - 17:07 35°<br><div></div> | <b>17</b> 17 - 348<br>06:58 - 17:07 35°<br><div></div> | <b>18</b> 18 - 347<br>06:57 - 17:08 35°<br><div></div> | <b>19</b> 19 - 346<br>06:57 - 17:09 36°<br><div></div> | <b>20</b> 20 - 345<br>06:57 - 17:10 36°<br><div></div> | <b>21</b> 21 - 344<br>06:56 - 17:11 36°<br><div></div> |
| 4 | <b>22</b> 22 - 343<br>06:56 - 17:12 36°<br><div></div> | <b>23</b> 23 - 342<br>06:55 - 17:13 37°<br><div></div> | <b>24</b> 24 - 341<br>06:55 - 17:14 37°<br><div></div> | <b>25</b> 25 - 340<br>06:54 - 17:15 37°<br><div></div> | <b>26</b> 26 - 339<br>06:54 - 17:16 37°<br><div></div> | <b>27</b> 27 - 338<br>06:53 - 17:17 38°<br><div></div> | <b>28</b> 28 - 337<br>06:53 - 17:18 38°<br><div></div> |
| 5 | <b>29</b> 29 - 336<br>06:52 - 17:19 38°<br><div></div> | <b>30</b> 30 - 335<br>06:51 - 17:20 38°<br><div></div> | <b>31</b> 31 - 334<br>06:51 - 17:21 39°<br><div></div> |                                                        |                                                        |                                                        |                                                        |

# February 2018



Pasadena  
-118.14°E, 34.14°N



Duration of the day, for February 21

Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

5

|                                    |                                    |                                    |                                    |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 1<br>32 - 333<br>06:50 - 17:22 39° | 2<br>33 - 332<br>06:49 - 17:23 39° | 3<br>34 - 331<br>06:48 - 17:24 40° | 4<br>35 - 330<br>06:48 - 17:25 40° |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|

6

|                                    |                                    |                                    |                                    |                                    |                                     |                                     |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| 5<br>36 - 329<br>06:47 - 17:26 40° | 6<br>37 - 328<br>06:46 - 17:27 40° | 7<br>38 - 327<br>06:45 - 17:28 41° | 8<br>39 - 326<br>06:44 - 17:29 41° | 9<br>40 - 325<br>06:43 - 17:30 41° | 10<br>41 - 324<br>06:42 - 17:31 42° | 11<br>42 - 323<br>06:41 - 17:32 42° |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|

7

|                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 12<br>43 - 322<br>06:40 - 17:33 42° | 13<br>44 - 321<br>06:39 - 17:34 43° | 14<br>45 - 320<br>06:38 - 17:35 43° | 15<br>46 - 319<br>06:37 - 17:36 43° | 16<br>47 - 318<br>06:36 - 17:37 44° | 17<br>48 - 317<br>06:35 - 17:38 44° | 18<br>49 - 316<br>06:34 - 17:39 44° |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|

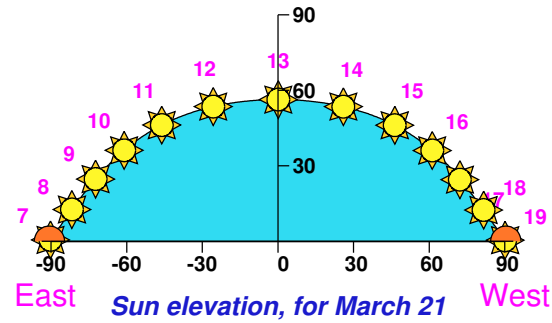
8

|                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 19<br>50 - 315<br>06:33 - 17:39 45° | 20<br>51 - 314<br>06:32 - 17:40 45° | 21<br>52 - 313<br>06:31 - 17:41 46° | 22<br>53 - 312<br>06:30 - 17:42 46° | 23<br>54 - 311<br>06:29 - 17:43 46° | 24<br>55 - 310<br>06:27 - 17:44 47° | 25<br>56 - 309<br>06:26 - 17:45 47° |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|

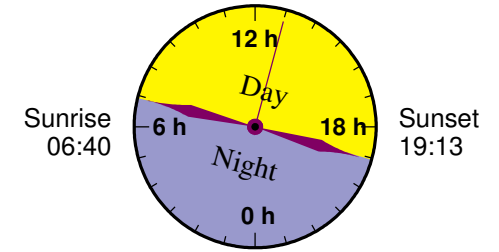
9

|                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|
| 26<br>57 - 308<br>06:25 - 17:46 47° | 27<br>58 - 307<br>06:24 - 17:47 48° | 28<br>59 - 306<br>06:23 - 17:47 48° |
|-------------------------------------|-------------------------------------|-------------------------------------|

# March 2018



**Pasadena**  
-118.14°E, 34.14°N



Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

*Time change March 11*

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

9

|                                                          |                                                          |                                                          |                                                          |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| <b>1</b><br>60 - 305<br>06:21 - 17:48 49°<br><div></div> | <b>2</b><br>61 - 304<br>06:20 - 17:49 49°<br><div></div> | <b>3</b><br>62 - 303<br>06:19 - 17:50 49°<br><div></div> | <b>4</b><br>63 - 302<br>06:18 - 17:51 50°<br><div></div> |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|

10

|                                                          |                                                          |                                                          |                                                          |                                                          |                                                           |                                                           |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>5</b><br>64 - 301<br>06:16 - 17:52 50°<br><div></div> | <b>6</b><br>65 - 300<br>06:15 - 17:53 50°<br><div></div> | <b>7</b><br>66 - 299<br>06:14 - 17:53 51°<br><div></div> | <b>8</b><br>67 - 298<br>06:12 - 17:54 51°<br><div></div> | <b>9</b><br>68 - 297<br>06:11 - 17:55 52°<br><div></div> | <b>10</b><br>69 - 296<br>06:10 - 17:56 52°<br><div></div> | <b>11</b><br>70 - 295<br>07:08 - 18:57 52°<br><div></div> |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

11

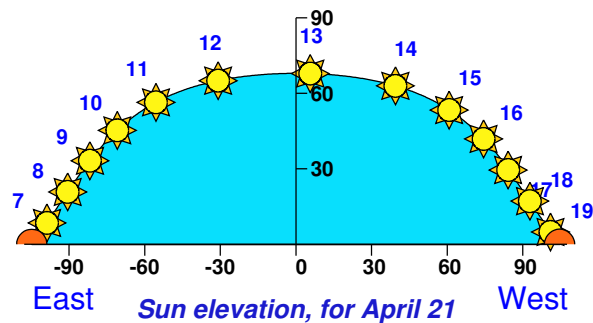
|                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>12</b><br>71 - 294<br>07:07 - 18:57 53°<br><div></div> | <b>13</b><br>72 - 293<br>07:06 - 18:58 53°<br><div></div> | <b>14</b><br>73 - 292<br>07:04 - 18:59 54°<br><div></div> | <b>15</b><br>74 - 291<br>07:03 - 19:00 54°<br><div></div> | <b>16</b><br>75 - 290<br>07:02 - 19:01 54°<br><div></div> | <b>17</b><br>76 - 289<br>07:00 - 19:01 55°<br><div></div> | <b>18</b><br>77 - 288<br>06:59 - 19:02 55°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

12

|                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>19</b><br>78 - 287<br>06:58 - 19:03 56°<br><div></div> | <b>20</b><br>79 - 286<br>06:56 - 19:04 56°<br><div></div> | <b>21</b><br>80 - 285<br>06:55 - 19:05 56°<br><div></div> | <b>22</b><br>81 - 284<br>06:54 - 19:05 57°<br><div></div> | <b>23</b><br>82 - 283<br>06:52 - 19:06 57°<br><div></div> | <b>24</b><br>83 - 282<br>06:51 - 19:07 58°<br><div></div> | <b>25</b><br>84 - 281<br>06:49 - 19:08 58°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

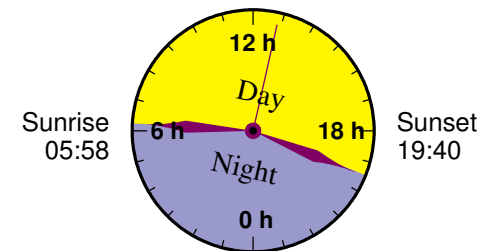
13

|                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>26</b><br>85 - 280<br>06:48 - 19:08 58°<br><div></div> | <b>27</b><br>86 - 279<br>06:47 - 19:09 59°<br><div></div> | <b>28</b><br>87 - 278<br>06:45 - 19:10 59°<br><div></div> | <b>29</b><br>88 - 277<br>06:44 - 19:11 59°<br><div></div> | <b>30</b><br>89 - 276<br>06:43 - 19:11 60°<br><div></div> | <b>31</b><br>90 - 275<br>06:41 - 19:12 60°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|



# April 2018

**Pasadena**  
-118.14°E, 34.14°N



*Duration of the day, for April 21*

Sunrise and Sunset at Pasadena (TL  $\pm 1$  mn) and sun maximal elevation (°)

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

13

14

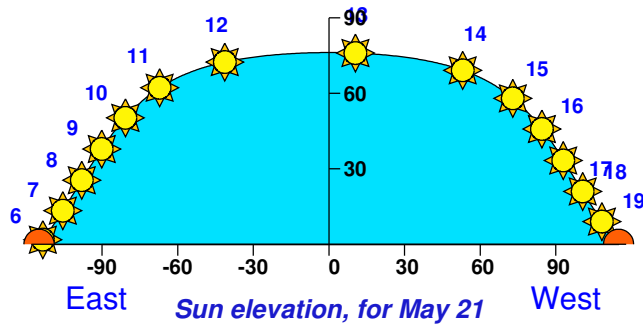
15

16

17

18

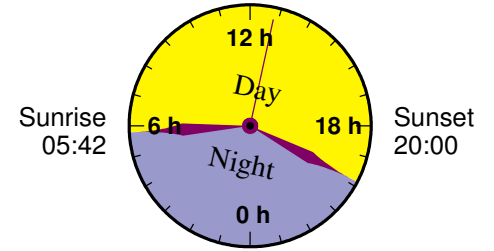
|                                                         |                                                         |                                                         |                                                         |                                                         |                                                         |                                                         |
|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
|                                                         |                                                         |                                                         |                                                         |                                                         |                                                         | <b>1</b> 91 - 274<br>06:40 - 19:13 61°<br><div></div>   |
| <b>2</b> 92 - 273<br>06:39 - 19:14 61°<br><div></div>   | <b>3</b> 93 - 272<br>06:37 - 19:14 61°<br><div></div>   | <b>4</b> 94 - 271<br>06:36 - 19:15 62°<br><div></div>   | <b>5</b> 95 - 270<br>06:34 - 19:16 62°<br><div></div>   | <b>6</b> 96 - 269<br>06:33 - 19:17 63°<br><div></div>   | <b>7</b> 97 - 268<br>06:32 - 19:18 63°<br><div></div>   | <b>8</b> 98 - 267<br>06:31 - 19:18 63°<br><div></div>   |
| <b>9</b> 99 - 266<br>06:29 - 19:19 64°<br><div></div>   | <b>10</b> 100 - 265<br>06:28 - 19:20 64°<br><div></div> | <b>11</b> 101 - 264<br>06:27 - 19:21 64°<br><div></div> | <b>12</b> 102 - 263<br>06:25 - 19:21 65°<br><div></div> | <b>13</b> 103 - 262<br>06:24 - 19:22 65°<br><div></div> | <b>14</b> 104 - 261<br>06:23 - 19:23 65°<br><div></div> | <b>15</b> 105 - 260<br>06:22 - 19:24 66°<br><div></div> |
| <b>16</b> 106 - 259<br>06:20 - 19:24 66°<br><div></div> | <b>17</b> 107 - 258<br>06:19 - 19:25 67°<br><div></div> | <b>18</b> 108 - 257<br>06:18 - 19:26 67°<br><div></div> | <b>19</b> 109 - 256<br>06:17 - 19:27 67°<br><div></div> | <b>20</b> 110 - 255<br>06:15 - 19:27 68°<br><div></div> | <b>21</b> 111 - 254<br>06:14 - 19:28 68°<br><div></div> | <b>22</b> 112 - 253<br>06:13 - 19:29 68°<br><div></div> |
| <b>23</b> 113 - 252<br>06:12 - 19:30 69°<br><div></div> | <b>24</b> 114 - 251<br>06:11 - 19:31 69°<br><div></div> | <b>25</b> 115 - 250<br>06:10 - 19:31 69°<br><div></div> | <b>26</b> 116 - 249<br>06:09 - 19:32 70°<br><div></div> | <b>27</b> 117 - 248<br>06:07 - 19:33 70°<br><div></div> | <b>28</b> 118 - 247<br>06:06 - 19:34 70°<br><div></div> | <b>29</b> 119 - 246<br>06:05 - 19:35 71°<br><div></div> |
| <b>30</b> 120 - 245<br>06:04 - 19:35 71°<br><div></div> |                                                         |                                                         |                                                         |                                                         |                                                         |                                                         |



# May 2018

Pasadena

-118.14°E, 34.14°N



Duration of the day, for May 21

Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

18

19

20

21

22

**1** 121 - 244  
06:03 - 19:36 71°

**2** 122 - 243  
06:02 - 19:37 71°

**3** 123 - 242  
06:01 - 19:38 72°

**4** 124 - 241  
06:00 - 19:38 72°

**5** 125 - 240  
05:59 - 19:39 72°

**6** 126 - 239  
05:58 - 19:40 73°

**7** 127 - 238  
05:57 - 19:41 73°

**8** 128 - 237  
05:57 - 19:42 73°

**9** 129 - 236  
05:56 - 19:42 73°

**10** 130 - 235  
05:55 - 19:43 74°

**11** 131 - 234  
05:54 - 19:44 74°

**12** 132 - 233  
05:53 - 19:45 74°

**13** 133 - 232  
05:52 - 19:45 74°

**14** 134 - 231  
05:52 - 19:46 75°

**15** 135 - 230  
05:51 - 19:47 75°

**16** 136 - 229  
05:50 - 19:48 75°

**17** 137 - 228  
05:49 - 19:48 75°

**18** 138 - 227  
05:49 - 19:49 76°

**19** 139 - 226  
05:48 - 19:50 76°

**20** 140 - 225  
05:48 - 19:51 76°

**21** 141 - 224  
05:47 - 19:51 76°

**22** 142 - 223  
05:46 - 19:52 76°

**23** 143 - 222  
05:46 - 19:53 77°

**24** 144 - 221  
05:45 - 19:54 77°

**25** 145 - 220  
05:45 - 19:54 77°

**26** 146 - 219  
05:44 - 19:55 77°

**27** 147 - 218  
05:44 - 19:56 77°

**28** 148 - 217  
05:44 - 19:56 77°

**29** 149 - 216  
05:43 - 19:57 78°

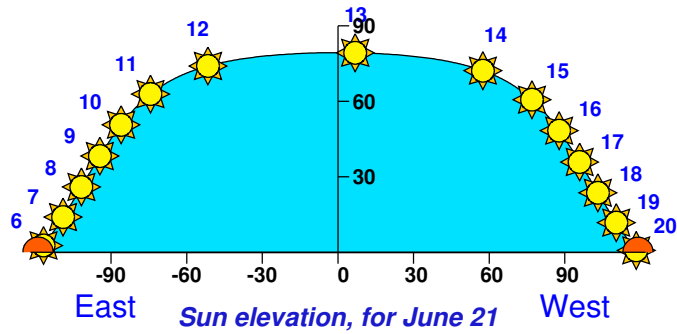
**30** 150 - 215  
05:43 - 19:58 78°

**31** 151 - 214  
05:42 - 19:58 78°

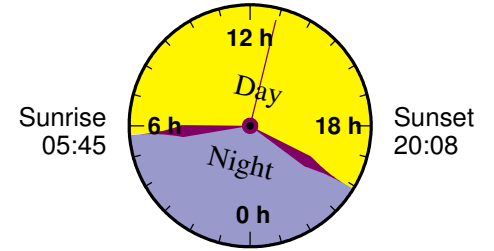
# June 2018

Pasadena

-118.14°E, 34.14°N



Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation ( $^{\circ}$ )



*Duration of the day, for June 21*

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

22

**1** 152 - 213  
05:42 - 19:59 78°

**2** 153 - 212  
05:42 - 19:59 78°

**3** 154 - 211  
05:42 - 20:00 78°

23

**4** 155 - 210  
05:41 - 20:01 78°

**5** 156 - 209  
05:41 - 20:01 78°

**6** 157 - 208  
05:41 - 20:02 79°

**7** 158 - 207  
05:41 - 20:02 79°

**8** 159 - 206  
05:41 - 20:03 79°

**9** 160 - 205  
05:41 - 20:03 79°

**10** 161 - 204  
05:41 - 20:04 79°

24

**11** 162 - 203  
05:41 - 20:04 79°

**12** 163 - 202  
05:41 - 20:04 79°

**13** 164 - 201  
05:41 - 20:05 79°

**14** 165 - 200  
05:41 - 20:05 79°

**15** 166 - 199  
05:41 - 20:06 79°

**16** 167 - 198  
05:41 - 20:06 79°

**17** 168 - 197  
05:41 - 20:06 79°

25

**18** 169 - 196  
05:41 - 20:07 79°

**19** 170 - 195  
05:41 - 20:07 79°

**20** 171 - 194  
05:41 - 20:07 79°

**21** 172 - 193  
05:42 - 20:07 79°

**22** 173 - 192  
05:42 - 20:08 79°

**23** 174 - 191  
05:42 - 20:08 79°

**24** 175 - 190  
05:42 - 20:08 79°

26

**25** 176 - 189  
05:43 - 20:08 79°

**26** 177 - 188  
05:43 - 20:08 79°

**27** 178 - 187  
05:43 - 20:08 79°

**28** 179 - 186  
05:44 - 20:08 79°

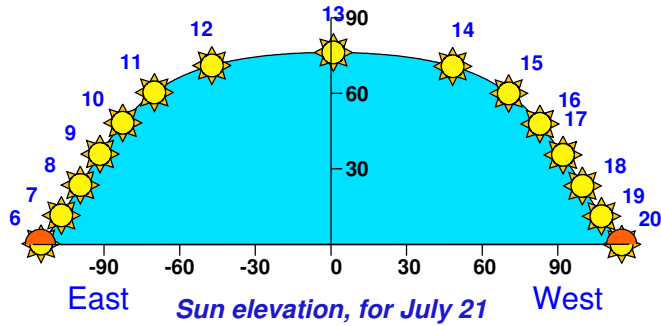
**29** 180 - 185  
05:44 - 20:08 79°

**30** 181 - 184  
05:44 - 20:08 79°

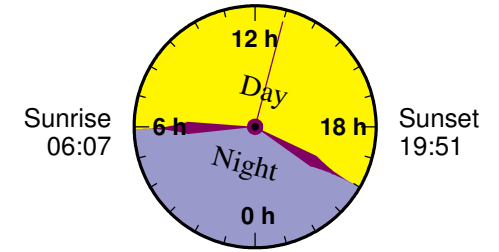
# July 2018

Pasadena

-118.14°E, 34.14°N



Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)



Duration of the day, for July 21

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

26

27

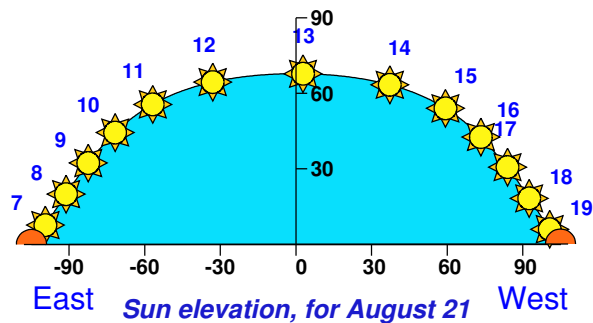
28

29

30

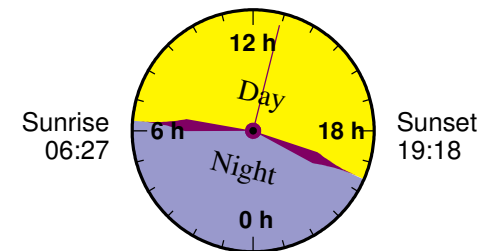
31

|                                                         |                                                         |                                                         |                                                         |                                                         |                                                         |                                                         |
|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
|                                                         |                                                         |                                                         |                                                         |                                                         |                                                         | <b>1</b> 182 - 183<br>05:45 - 20:08 79°<br><div></div>  |
| <b>2</b> 183 - 182<br>05:45 - 20:08 79°<br><div></div>  | <b>3</b> 184 - 181<br>05:46 - 20:08 79°<br><div></div>  | <b>4</b> 185 - 180<br>05:46 - 20:08 79°<br><div></div>  | <b>5</b> 186 - 179<br>05:47 - 20:08 79°<br><div></div>  | <b>6</b> 187 - 178<br>05:47 - 20:08 78°<br><div></div>  | <b>7</b> 188 - 177<br>05:48 - 20:08 78°<br><div></div>  | <b>8</b> 189 - 176<br>05:48 - 20:08 78°<br><div></div>  |
| <b>9</b> 190 - 175<br>05:49 - 20:07 78°<br><div></div>  | <b>10</b> 191 - 174<br>05:49 - 20:07 78°<br><div></div> | <b>11</b> 192 - 173<br>05:50 - 20:07 78°<br><div></div> | <b>12</b> 193 - 172<br>05:51 - 20:06 78°<br><div></div> | <b>13</b> 194 - 171<br>05:51 - 20:06 78°<br><div></div> | <b>14</b> 195 - 170<br>05:52 - 20:06 77°<br><div></div> | <b>15</b> 196 - 169<br>05:52 - 20:05 77°<br><div></div> |
| <b>16</b> 197 - 168<br>05:53 - 20:05 77°<br><div></div> | <b>17</b> 198 - 167<br>05:54 - 20:04 77°<br><div></div> | <b>18</b> 199 - 166<br>05:54 - 20:04 77°<br><div></div> | <b>19</b> 200 - 165<br>05:55 - 20:03 77°<br><div></div> | <b>20</b> 201 - 164<br>05:56 - 20:03 76°<br><div></div> | <b>21</b> 202 - 163<br>05:56 - 20:02 76°<br><div></div> | <b>22</b> 203 - 162<br>05:57 - 20:02 76°<br><div></div> |
| <b>23</b> 204 - 161<br>05:58 - 20:01 76°<br><div></div> | <b>24</b> 205 - 160<br>05:58 - 20:00 76°<br><div></div> | <b>25</b> 206 - 159<br>05:59 - 20:00 75°<br><div></div> | <b>26</b> 207 - 158<br>06:00 - 19:59 75°<br><div></div> | <b>27</b> 208 - 157<br>06:00 - 19:58 75°<br><div></div> | <b>28</b> 209 - 156<br>06:01 - 19:58 75°<br><div></div> | <b>29</b> 210 - 155<br>06:02 - 19:57 74°<br><div></div> |
| <b>30</b> 211 - 154<br>06:03 - 19:56 74°<br><div></div> | <b>31</b> 212 - 153<br>06:03 - 19:55 74°<br><div></div> |                                                         |                                                         |                                                         |                                                         |                                                         |



# August 2018

**Pasadena**  
-118.14°E, 34.14°N



*Duration of the day, for August 21*

Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

31

32

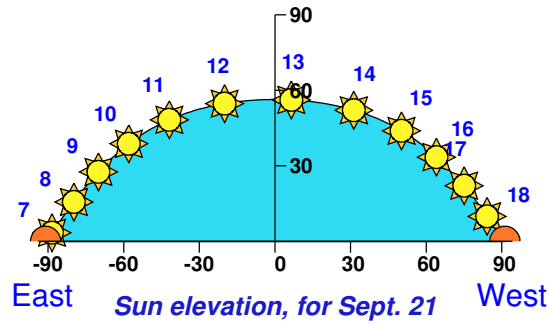
33

34

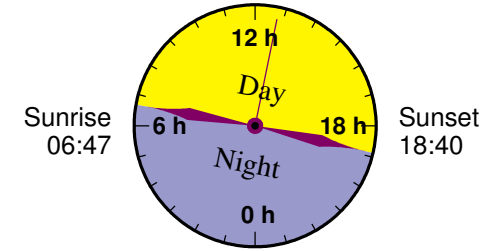
35

|                                              |                                              |                                              |                                              |                                              |                                              |                                              |
|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
|                                              |                                              | <b>1</b> 213 - 152<br>06:04 - 19:55 74°<br>  | <b>2</b> 214 - 151<br>06:05 - 19:54 73°<br>  | <b>3</b> 215 - 150<br>06:05 - 19:53 73°<br>  | <b>4</b> 216 - 149<br>06:06 - 19:52 73°<br>  | <b>5</b> 217 - 148<br>06:07 - 19:51 73°<br>  |
| <b>6</b> 218 - 147<br>06:08 - 19:50 72°<br>  | <b>7</b> 219 - 146<br>06:08 - 19:49 72°<br>  | <b>8</b> 220 - 145<br>06:09 - 19:48 72°<br>  | <b>9</b> 221 - 144<br>06:10 - 19:47 72°<br>  | <b>10</b> 222 - 143<br>06:11 - 19:46 71°<br> | <b>11</b> 223 - 142<br>06:11 - 19:45 71°<br> | <b>12</b> 224 - 141<br>06:12 - 19:44 71°<br> |
| <b>13</b> 225 - 140<br>06:13 - 19:43 70°<br> | <b>14</b> 226 - 139<br>06:13 - 19:42 70°<br> | <b>15</b> 227 - 138<br>06:14 - 19:41 70°<br> | <b>16</b> 228 - 137<br>06:15 - 19:40 69°<br> | <b>17</b> 229 - 136<br>06:16 - 19:38 69°<br> | <b>18</b> 230 - 135<br>06:16 - 19:37 69°<br> | <b>19</b> 231 - 134<br>06:17 - 19:36 68°<br> |
| <b>20</b> 232 - 133<br>06:18 - 19:35 68°<br> | <b>21</b> 233 - 132<br>06:19 - 19:34 68°<br> | <b>22</b> 234 - 131<br>06:19 - 19:33 67°<br> | <b>23</b> 235 - 130<br>06:20 - 19:31 67°<br> | <b>24</b> 236 - 129<br>06:21 - 19:30 67°<br> | <b>25</b> 237 - 128<br>06:21 - 19:29 66°<br> | <b>26</b> 238 - 127<br>06:22 - 19:28 66°<br> |
| <b>27</b> 239 - 126<br>06:23 - 19:26 66°<br> | <b>28</b> 240 - 125<br>06:23 - 19:25 65°<br> | <b>29</b> 241 - 124<br>06:24 - 19:24 65°<br> | <b>30</b> 242 - 123<br>06:25 - 19:22 65°<br> | <b>31</b> 243 - 122<br>06:26 - 19:21 64°<br> |                                              |                                              |

# September 2018



Pasadena  
-118.14°E, 34.14°N



Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

35

36

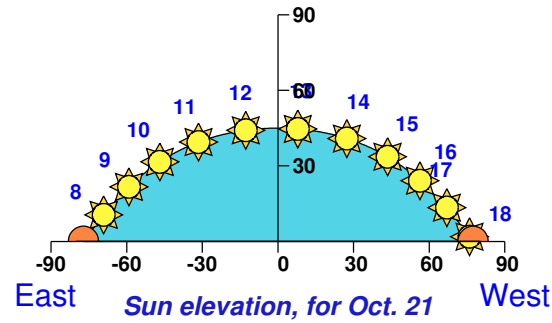
37

38

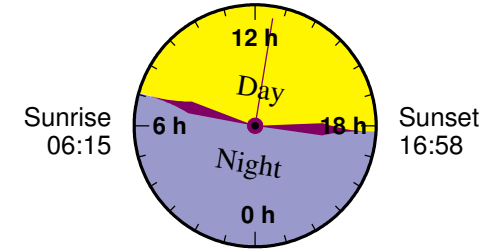
39

|                                              |                                              |
|----------------------------------------------|----------------------------------------------|
| <b>1</b> 244 - 121<br>06:26 - 19:20 64°<br>  | <b>2</b> 245 - 120<br>06:27 - 19:18 64°<br>  |
| <b>3</b> 246 - 119<br>06:28 - 19:17 63°<br>  | <b>4</b> 247 - 118<br>06:28 - 19:16 63°<br>  |
| <b>5</b> 248 - 117<br>06:29 - 19:14 62°<br>  | <b>6</b> 249 - 116<br>06:30 - 19:13 62°<br>  |
| <b>7</b> 250 - 115<br>06:30 - 19:12 62°<br>  | <b>8</b> 251 - 114<br>06:31 - 19:10 61°<br>  |
| <b>9</b> 252 - 113<br>06:32 - 19:09 61°<br>  |                                              |
| <b>10</b> 253 - 112<br>06:33 - 19:08 61°<br> | <b>11</b> 254 - 111<br>06:33 - 19:06 60°<br> |
| <b>12</b> 255 - 110<br>06:34 - 19:05 60°<br> | <b>13</b> 256 - 109<br>06:35 - 19:03 59°<br> |
| <b>14</b> 257 - 108<br>06:35 - 19:02 59°<br> | <b>15</b> 258 - 107<br>06:36 - 19:01 59°<br> |
| <b>16</b> 259 - 106<br>06:37 - 18:59 58°<br> |                                              |
| <b>17</b> 260 - 105<br>06:37 - 18:58 58°<br> | <b>18</b> 261 - 104<br>06:38 - 18:56 58°<br> |
| <b>19</b> 262 - 103<br>06:39 - 18:55 57°<br> | <b>20</b> 263 - 102<br>06:39 - 18:54 57°<br> |
| <b>21</b> 264 - 101<br>06:40 - 18:52 56°<br> | <b>22</b> 265 - 100<br>06:41 - 18:51 56°<br> |
| <b>23</b> 266 - 99<br>06:42 - 18:49 56°<br>  |                                              |
| <b>24</b> 267 - 98<br>06:42 - 18:48 55°<br>  | <b>25</b> 268 - 97<br>06:43 - 18:46 55°<br>  |
| <b>26</b> 269 - 96<br>06:44 - 18:45 54°<br>  | <b>27</b> 270 - 95<br>06:44 - 18:44 54°<br>  |
| <b>28</b> 271 - 94<br>06:45 - 18:42 54°<br>  | <b>29</b> 272 - 93<br>06:46 - 18:41 53°<br>  |
| <b>30</b> 273 - 92<br>06:47 - 18:40 53°<br>  |                                              |

# October 2018



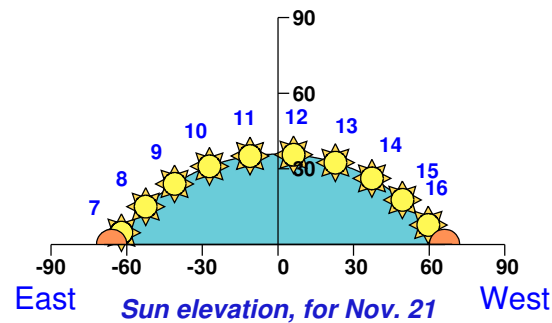
**Pasadena**  
-118.14°E, 34.14°N



*Duration of the day, for October 21*

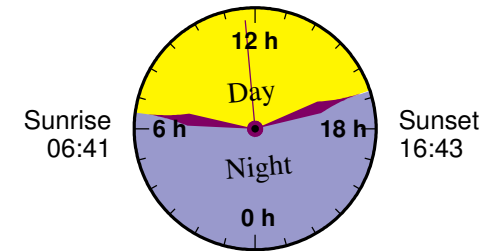
Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

|    | Monday                                      | Tuesday                                     | Wednesday                                   | Thursday                                    | Friday                                      | Saturday                                    | Sunday                                      |
|----|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| 40 | <b>1</b> 274 - 91<br>06:47 - 18:38 52°<br>  | <b>2</b> 275 - 90<br>06:48 - 18:37 52°<br>  | <b>3</b> 276 - 89<br>06:49 - 18:35 52°<br>  | <b>4</b> 277 - 88<br>06:50 - 18:34 51°<br>  | <b>5</b> 278 - 87<br>06:50 - 18:33 51°<br>  | <b>6</b> 279 - 86<br>06:51 - 18:31 51°<br>  | <b>7</b> 280 - 85<br>06:52 - 18:30 50°<br>  |
| 41 | <b>8</b> 281 - 84<br>06:53 - 18:29 50°<br>  | <b>9</b> 282 - 83<br>06:53 - 18:27 49°<br>  | <b>10</b> 283 - 82<br>06:54 - 18:26 49°<br> | <b>11</b> 284 - 81<br>06:55 - 18:25 49°<br> | <b>12</b> 285 - 80<br>06:56 - 18:23 48°<br> | <b>13</b> 286 - 79<br>06:56 - 18:22 48°<br> | <b>14</b> 287 - 78<br>06:57 - 18:21 48°<br> |
| 42 | <b>15</b> 288 - 77<br>06:58 - 18:20 47°<br> | <b>16</b> 289 - 76<br>06:59 - 18:18 47°<br> | <b>17</b> 290 - 75<br>07:00 - 18:17 46°<br> | <b>18</b> 291 - 74<br>07:00 - 18:16 46°<br> | <b>19</b> 292 - 73<br>07:01 - 18:15 46°<br> | <b>20</b> 293 - 72<br>07:02 - 18:14 45°<br> | <b>21</b> 294 - 71<br>07:03 - 18:12 45°<br> |
| 43 | <b>22</b> 295 - 70<br>07:04 - 18:11 45°<br> | <b>23</b> 296 - 69<br>07:05 - 18:10 44°<br> | <b>24</b> 297 - 68<br>07:06 - 18:09 44°<br> | <b>25</b> 298 - 67<br>07:06 - 18:08 44°<br> | <b>26</b> 299 - 66<br>07:07 - 18:07 43°<br> | <b>27</b> 300 - 65<br>07:08 - 18:06 43°<br> | <b>28</b> 301 - 64<br>07:09 - 18:05 43°<br> |
| 44 | <b>29</b> 302 - 63<br>07:10 - 18:04 42°<br> | <b>30</b> 303 - 62<br>07:11 - 18:03 42°<br> | <b>31</b> 304 - 61<br>07:12 - 18:02 42°<br> |                                             |                                             |                                             |                                             |



# November 2018

**Pasadena**  
-118.14°E, 34.14°N



*Duration of the day, for November 21*

Sunrise and Sunset at Pasadena (TL  $\pm$  1 mn) and sun maximal elevation (°)

*Time change November 4*

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

44

|                                                          |                                                          |                                                          |                                                          |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| <b>1</b><br>305 - 60<br>07:13 - 18:01 41°<br><div></div> | <b>2</b><br>306 - 59<br>07:13 - 18:00 41°<br><div></div> | <b>3</b><br>307 - 58<br>07:14 - 17:59 41°<br><div></div> | <b>4</b><br>308 - 57<br>06:15 - 16:58 40°<br><div></div> |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|

45

|                                                          |                                                          |                                                          |                                                          |                                                          |                                                           |                                                           |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>5</b><br>309 - 56<br>06:16 - 16:57 40°<br><div></div> | <b>6</b><br>310 - 55<br>06:17 - 16:56 40°<br><div></div> | <b>7</b><br>311 - 54<br>06:18 - 16:55 39°<br><div></div> | <b>8</b><br>312 - 53<br>06:19 - 16:54 39°<br><div></div> | <b>9</b><br>313 - 52<br>06:20 - 16:54 39°<br><div></div> | <b>10</b><br>314 - 51<br>06:21 - 16:53 39°<br><div></div> | <b>11</b><br>315 - 50<br>06:22 - 16:52 38°<br><div></div> |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

46

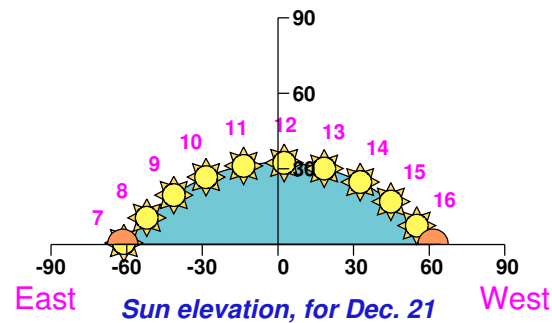
|                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>12</b><br>316 - 49<br>06:23 - 16:51 38°<br><div></div> | <b>13</b><br>317 - 48<br>06:24 - 16:51 38°<br><div></div> | <b>14</b><br>318 - 47<br>06:25 - 16:50 38°<br><div></div> | <b>15</b><br>319 - 46<br>06:26 - 16:49 37°<br><div></div> | <b>16</b><br>320 - 45<br>06:27 - 16:49 37°<br><div></div> | <b>17</b><br>321 - 44<br>06:28 - 16:48 37°<br><div></div> | <b>18</b><br>322 - 43<br>06:28 - 16:48 37°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

47

|                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>19</b><br>323 - 42<br>06:29 - 16:47 36°<br><div></div> | <b>20</b><br>324 - 41<br>06:30 - 16:47 36°<br><div></div> | <b>21</b><br>325 - 40<br>06:31 - 16:46 36°<br><div></div> | <b>22</b><br>326 - 39<br>06:32 - 16:46 36°<br><div></div> | <b>23</b><br>327 - 38<br>06:33 - 16:45 35°<br><div></div> | <b>24</b><br>328 - 37<br>06:34 - 16:45 35°<br><div></div> | <b>25</b><br>329 - 36<br>06:35 - 16:45 35°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|

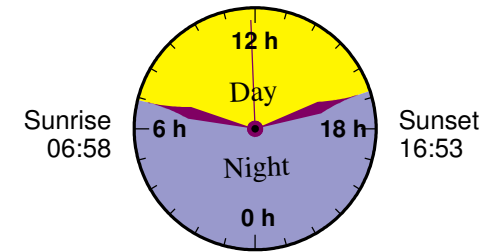
48

|                                                           |                                                           |                                                           |                                                           |                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| <b>26</b><br>330 - 35<br>06:36 - 16:44 35°<br><div></div> | <b>27</b><br>331 - 34<br>06:37 - 16:44 35°<br><div></div> | <b>28</b><br>332 - 33<br>06:38 - 16:44 34°<br><div></div> | <b>29</b><br>333 - 32<br>06:39 - 16:44 34°<br><div></div> | <b>30</b><br>334 - 31<br>06:40 - 16:43 34°<br><div></div> |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|



# December 2018

**Pasadena**  
-118.14°E, 34.14°N



*Duration of the day, for December 21*

Sunrise and Sunset at Pasadena (TL ± 1 mn) and sun maximal elevation (°)

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

48

49

50

51

52

53

|                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| <b>1</b> 335 - 30<br>06:40 - 16:43 34°<br><input type="text"/>  | <b>2</b> 336 - 29<br>06:41 - 16:43 34°<br><input type="text"/>  |
| <b>3</b> 337 - 28<br>06:42 - 16:43 34°<br><input type="text"/>  | <b>4</b> 338 - 27<br>06:43 - 16:43 34°<br><input type="text"/>  |
| <b>5</b> 339 - 26<br>06:44 - 16:43 33°<br><input type="text"/>  | <b>6</b> 340 - 25<br>06:45 - 16:43 33°<br><input type="text"/>  |
| <b>7</b> 341 - 24<br>06:45 - 16:43 33°<br><input type="text"/>  | <b>8</b> 342 - 23<br>06:46 - 16:43 33°<br><input type="text"/>  |
| <b>9</b> 343 - 22<br>06:47 - 16:43 33°<br><input type="text"/>  | <b>10</b> 344 - 21<br>06:48 - 16:43 33°<br><input type="text"/> |
| <b>11</b> 345 - 20<br>06:48 - 16:43 33°<br><input type="text"/> | <b>12</b> 346 - 19<br>06:49 - 16:44 33°<br><input type="text"/> |
| <b>13</b> 347 - 18<br>06:50 - 16:44 33°<br><input type="text"/> | <b>14</b> 348 - 17<br>06:51 - 16:44 33°<br><input type="text"/> |
| <b>15</b> 349 - 16<br>06:51 - 16:44 33°<br><input type="text"/> | <b>16</b> 350 - 15<br>06:52 - 16:45 33°<br><input type="text"/> |
| <b>17</b> 351 - 14<br>06:52 - 16:45 33°<br><input type="text"/> | <b>18</b> 352 - 13<br>06:53 - 16:45 32°<br><input type="text"/> |
| <b>19</b> 353 - 12<br>06:54 - 16:46 32°<br><input type="text"/> | <b>20</b> 354 - 11<br>06:54 - 16:46 32°<br><input type="text"/> |
| <b>21</b> 355 - 10<br>06:55 - 16:47 32°<br><input type="text"/> | <b>22</b> 356 - 9<br>06:55 - 16:47 32°<br><input type="text"/>  |
| <b>23</b> 357 - 8<br>06:56 - 16:48 32°<br><input type="text"/>  | <b>24</b> 358 - 7<br>06:56 - 16:48 32°<br><input type="text"/>  |
| <b>25</b> 359 - 6<br>06:56 - 16:49 33°<br><input type="text"/>  | <b>26</b> 360 - 5<br>06:57 - 16:49 33°<br><input type="text"/>  |
| <b>27</b> 361 - 4<br>06:57 - 16:50 33°<br><input type="text"/>  | <b>28</b> 362 - 3<br>06:58 - 16:51 33°<br><input type="text"/>  |
| <b>29</b> 363 - 2<br>06:58 - 16:51 33°<br><input type="text"/>  | <b>30</b> 364 - 1<br>06:58 - 16:52 33°<br><input type="text"/>  |
| <b>31</b> 365 - 0<br>06:58 - 16:53 33°<br><input type="text"/>  |                                                                 |