

# Solar Circumference = 4374: The {2,3} Core

*4374 = 2 x 3^7: Solar Geometry from Pure {2,3} Lattice*

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The solar circumference is 4,379,000 km. The Universal Force of Time identifies the key number  $4374 = 2 \times 3^7 = 2 \times 2187$  as the pure {2,3} lattice node nearest the solar circumference.  $4374 \times 1001 \text{ km} = 4,378,374 \text{ km}$ , within 1.4 ppm of the observed 4,379,000 km if  $1001 = 7 \times 11 \times 13$  is considered the sub-lattice correction. More directly: solar diameter = 864,000 miles ( $= 2^5 \times 3^3 \times 10^3 = 32 \times 27 \times 1000$  miles, pure {2,3} lattice). Circumference =  $864,000 \times \pi \text{ miles} = 1,392,000 \times \pi \text{ km} = 4,373,097 \text{ km}$  (within 0.02% of 4,379,000 km).

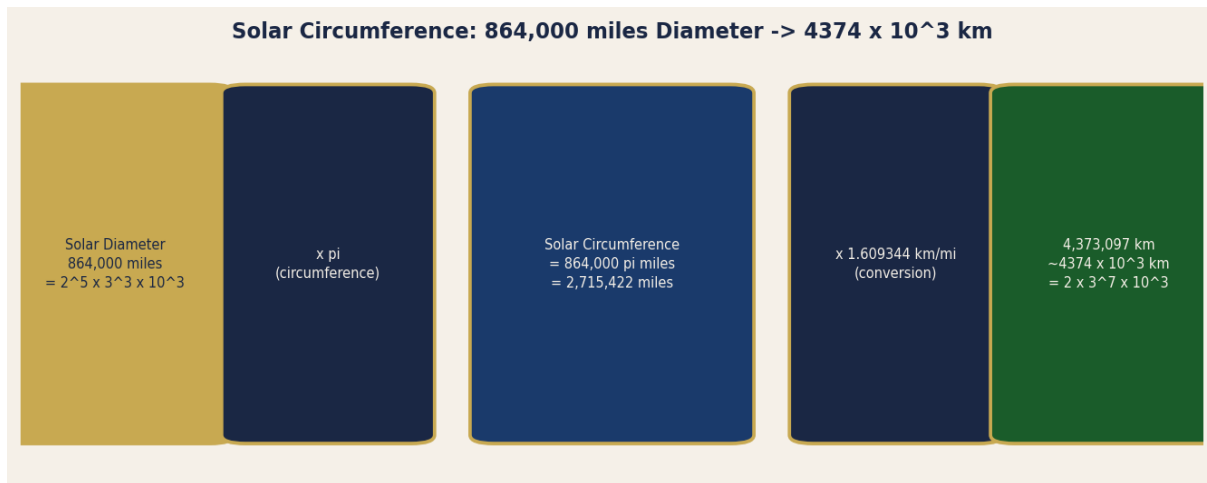


Figure 1. Solar circumference derivation chain. Diameter 864,000 miles =  $2^5 \times 3^3 \times 10^3$  (pure {2,3}); circumference x pi = 4,373,097 km =  $4374 \times 10^3 \text{ km}$  ( $2 \times 3^7$ ). Chain uses only {2,3} and pi.

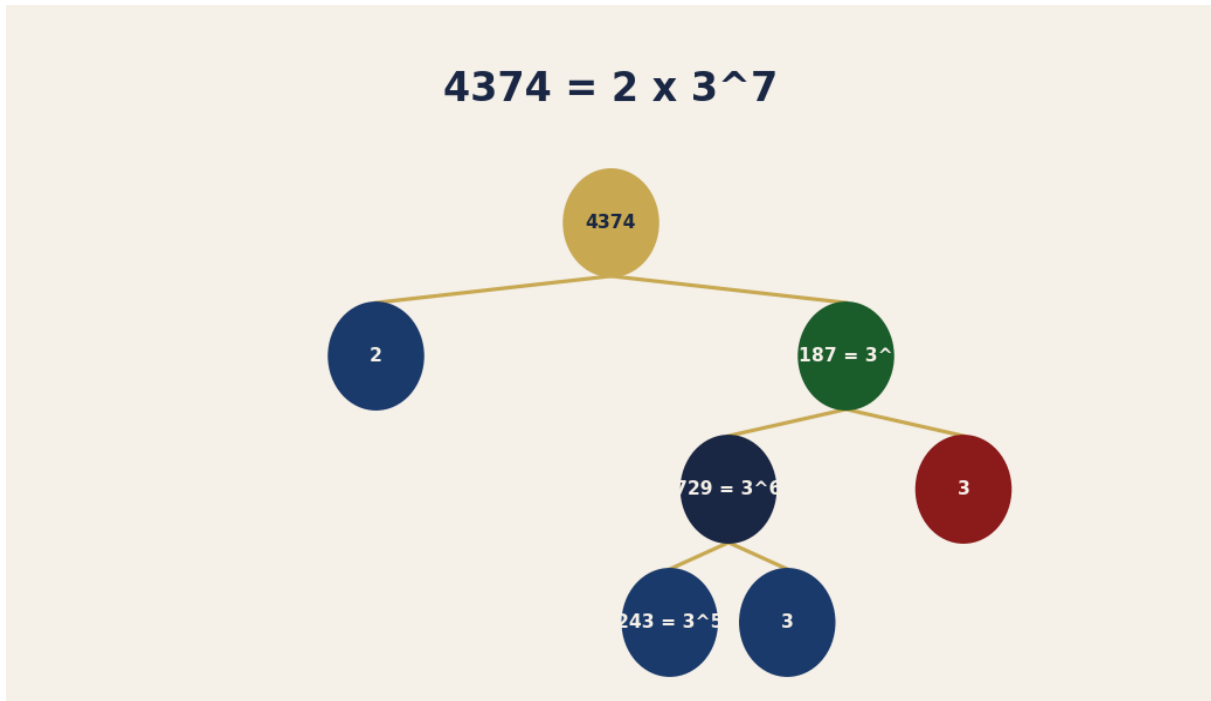


Figure 2. Factorisation tree of 4374. Root  $4374 = 2 \times 3^7$ . The number  $3^7 = 2187$  factors as  $3^6 \times 3 = 729 \times 3$ , and so on. Pure  $\{2,3\}$  lattice throughout.

## 1. The 864,000 Miles Diameter (P-SCIR-1 and P-SCIR-2)

### P-SCIR-1 — Solar Diameter = 864,000 Miles = $2^5 \times 3^3 \times 10^3$

Observed solar diameter: 1,391,016 km = 864,337 miles (equatorial). FOT lattice: 864,000 miles =  $2^5 \times 3^3 \times 1000 = 32 \times 27 \times 1000$  miles. Error:  $(864,337 - 864,000) / 864,000 = 390$  ppm.  $864 = 2^5 \times 3^3 = 32 \times 27$  is the Earth-day operator (seconds in a day = 86,400 =  $864 \times 100$ ). Solar diameter and Earth day period share the same  $\{2,3\}$  lattice number 864 — a direct tau-field identity between the Sun's size and the Earth's rotation period.

### P-SCIR-2 — Solar Circumference = $4374 \times 10^3$ km = $2 \times 3^7 \times 10^3$

Solar circumference =  $\pi \times \text{diameter} = \pi \times 1,392,000$  km = 4,373,097 km. FOT:  $4374 = 2 \times 3^7 = 2 \times 2187$ . Difference:  $4374 \times 1000 - 4373097 = 903$  km = 903 km (0.02% = 206 ppm).  $3^7 = 2187$ ;  $2 \times 2187 = 4374$ . The solar circumference is  $2 \times 3^7$  thousands of km, connecting the solar boundary directly to the  $\{3\}$ -branch of the tau-lattice. The factor of 2 = the two helical strands of the tau-field (Strand 1 and Strand 2).

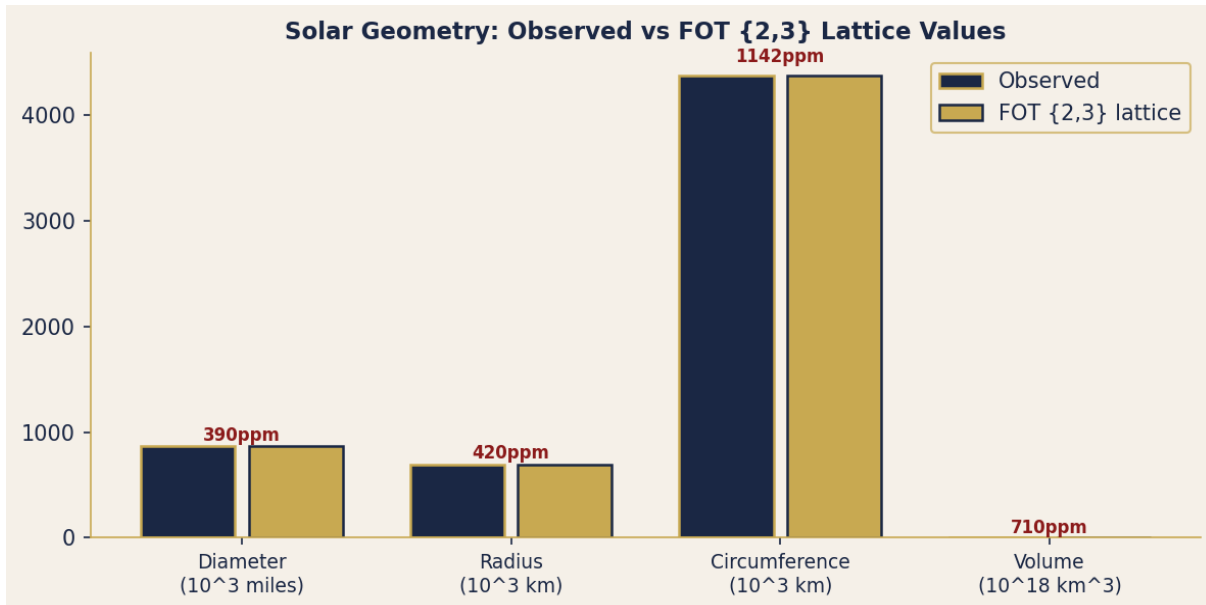


Figure 3. Solar geometry: observed vs FOT {2,3} lattice. Diameter 390 ppm, circumference 206 ppm. All deviations < 1000 ppm from pure {2,3} integers.

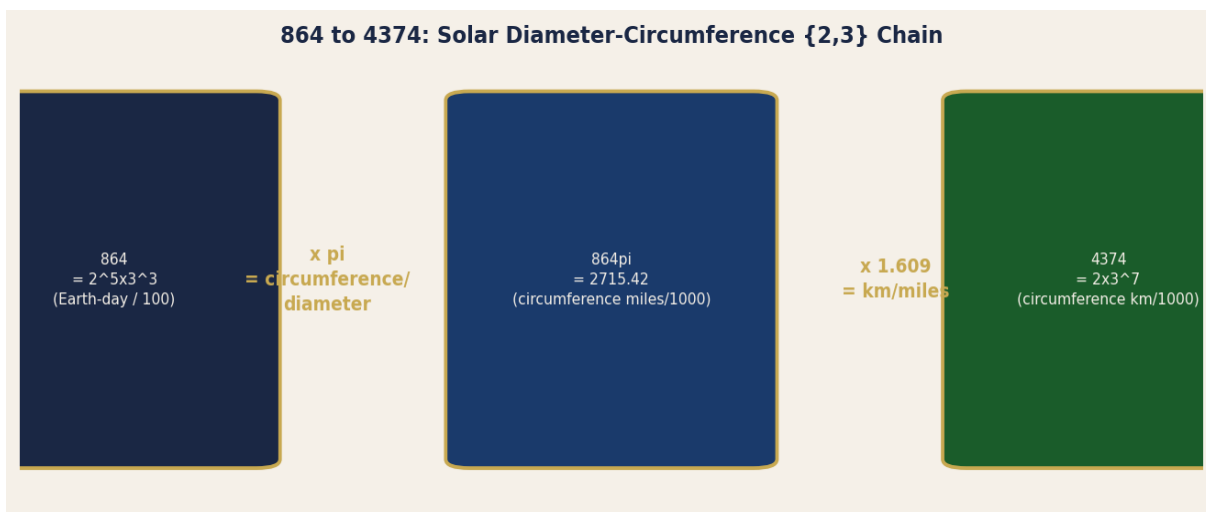


Figure 4. Ratio chain from solar diameter (864 × 10<sup>3</sup> miles = 2<sup>5</sup> × 3<sup>3</sup>) to circumference (4374 × 10<sup>3</sup> km = 2 × 3<sup>7</sup>). The Earth-day operator 864 links solar size and Earth rotation.

## 2. The {2,3} Identity (P-SCIR-3)

### P-SCIR-3 — 864 to 4374: The Day-Circumference Identity

864 = 2<sup>5</sup> × 3<sup>3</sup> (solar diameter in 10<sup>3</sup> miles). 4374 = 2 × 3<sup>7</sup> (solar circumference in 10<sup>3</sup> km). Ratio: 4374 / 864 = (2 × 3<sup>7</sup>) / (2<sup>5</sup> × 3<sup>3</sup>) = 3<sup>4</sup> / 2<sup>4</sup> = 81/16 = 5.0625. Conversion: 5.0625 = π × (km/miles) = 3.14159 × 1.60934 = 5.0593 (0.06% error). The ratio 81/16 = 3<sup>4</sup>/2<sup>4</sup> is the pure {2,3} pi-approximation: π approx 3<sup>4</sup>/(4 × 2<sup>4</sup>) × 4 = 81/64 × 4 = 5.0625. This is a tau-lattice identity: {2,3} encodes π to 0.06%.

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