

18⁴
4. 6 is a quadratic residue modulo 19.
Use prop. 45.3 to find its square roots.

$$\left(\pm 9^{(p+1)/4} \right) \bmod p = \left(\pm 6^{(19+1)/4} \right) \bmod 19$$

$$= (\pm 6^5) \bmod 19$$

$$= \pm 7776 \bmod 19$$

$$= 2, 11$$