

$$4a^{\frac{2}{3}} - 16 = 0$$

$$4a^{\frac{2}{3}} = 16$$

$$a^{\frac{2}{3}} = 4$$

$$(a^{\frac{2}{3}})^{\frac{3}{2}} = 4^{\frac{3}{2}}$$

$$a = \sqrt{4^3} = \sqrt{64} = 8$$