

5.4.16

# Slot Quiz on Rational Exponents Friday.

Simplify the following.

$$(25b^6)^{-1.5}$$

$$25^{-1.5} \cdot b^{6 \cdot (-1.5)}$$

$$\frac{1}{25^{1.5}} \cdot \frac{1}{b^9}$$

$$\boxed{\frac{1}{37.5b^9}}$$

$$\frac{2x^{-\frac{7}{4}}}{4x^{\frac{4}{3}}}$$

$$\frac{2x^{\frac{7}{4}} \cdot 4x^{\frac{4}{3}}}{1}$$

$$8x^{\frac{7}{4} + \frac{4}{3}} = 8x^{\frac{21}{12} + \frac{16}{12}}$$

$$\boxed{8x^{\frac{37}{12}}}$$