

R6 Ex 4  $27^{\frac{1}{3}} = 3$  }  $100^{\frac{1}{2}} = 10$  day 2 (1)

$\sqrt[3]{27}$  }  $\sqrt{100}$

$27 \leftarrow 3^3$  }  $100 \leftarrow 10^2$

(a)  $36^{\frac{1}{2}} = 6$       (b)  $-100^{\frac{1}{2}} = -10$

(c)  $-(225)^{\frac{1}{2}} = -15$       (d)  $625^{\frac{1}{4}} = 5$

(e)  $(-1296)^{\frac{1}{4}} \rightarrow$  NOT A REAL #      (f)  $-1296^{\frac{1}{4}} = -6$   
 $+1296 \leftarrow (-6)^4$

(g)  $(-27)^{\frac{1}{3}} = -3$       (h)  $-32^{\frac{1}{5}} = -2$   
 $-27 = (-3)^3$

R6

**Ex 5**

day 2

(2)

$$a^{\frac{m}{n}} = \left(a^{\frac{1}{n}}\right)^m$$

$$= \sqrt[n]{a^m} = \sqrt[n]{a^m}$$

$$(a) \quad 125^{\frac{2}{3}} = \left(125^{\frac{1}{3}}\right)^2 = 5^2 = \boxed{25}$$

$$(b) \quad 32^{\frac{7}{5}} = \left(32^{\frac{1}{5}}\right)^7 = 2^7 = \boxed{128}$$

$$(c) \quad -81^{\frac{3}{2}} = -\left(81^{\frac{1}{2}}\right)^3 = -(9)^3 = \boxed{-729}$$

$$(d) \quad (-27)^{\frac{2}{3}} = \left((-27)^{\frac{1}{3}}\right)^2 = (-3)^2 = \boxed{9}$$

$$(e) \quad 16^{-\frac{3}{4}} = \frac{1}{16^{\frac{3}{4}}} = \frac{1}{\left(16^{\frac{1}{4}}\right)^3} = \frac{1}{2^3} = \boxed{\frac{1}{8}}$$

$$(f) \quad (-4)^{\frac{5}{2}} = \left((-4)^{\frac{1}{2}}\right)^5 = \boxed{\text{Not a Real \#}}$$