

1.5.2: Solving Exponential Equations Using Common Bases

Date: _____

Ex. 1 Solve each exponential equation by determining a common base.

a) $2^x = 32$

b) $3^{5x+8} = 27^x$

c) $3^{2x+5} = 27^{4x}$

d) $4^{5x-1} = 2^{2(x+1)}$ **

e) $4^{3x} = 8^{x+1}$

f) $3(2^{x-1}) = 96$

g) $5(3^{x+3}) = 405$

h) $\sqrt{2} = 4^{x+1}$

i) How could you check your solutions using graphing technology?