Section 4.3 Extra Practice

**1.** Use the exponent laws to simplify each expression.

**a)** 

**b)** 

**c)** [(*x*1.5) (*x*2.5)]0.5

**d) **

**e) **

**2.** Simplify each expression. State the answer using positive exponents.

**a)** 

**b)** 

**c)** 

**d)** 

**e) **

**3.** Evaluate without using a calculator. Leave each answer as a rational number.

**a)** 

**b)** 

**c) **

**d) **

**e) **

**4.** The growth of 5000 bacterium cells in a   
lab can be modelled using the expression   
 where *N* is the number   
of bacteria after *h* hours.

**a)** What does the value 1.5 in the expression tell you?

**b)** How many bacteria are there after 40 h?

**c)** How many more bacteria are there after 3 h?

**d)** What does *h =* 0 indicate?